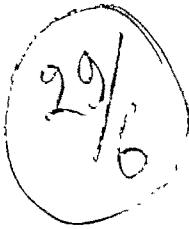


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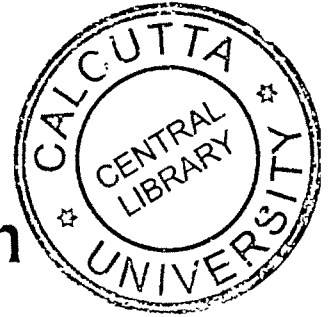
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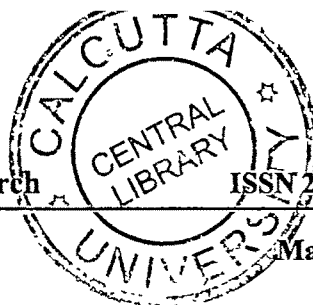


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Editor's Note

Whole hearted greeting to all our readers, contributors, reviewers and others associated with the *Indian Journal of Educational Research*.

It is our pleasure to publish the present issue of the Indian Journal of Educational Research, Volume VI. We are really thankful to find the responses and contributions of scholars in Education throughout the country. After a thorough peer-review process, research papers are finally selected for the present issue.

The present issue is comprised of fifteen articles and twelve Ph. D. thesis abstracts related to good quality research covering various aspects of education. The topics cover from preprimary to higher education including diverse issues like special education, philosophy of education, teacher education, and legal education. Moreover, as a truly research journal, it has delved into matters related to choice based credit system, curriculum, yoga practices and other issues. Articles are included in historical, sociological and psychological research. All the papers in the journal are expected to enhance the quality research in education. It is to be noted that our journal can be seen at present in our University website (caluniv.ac.in) through 'Education' Department.

Our whole hearted thanks to the authorities of the University, our colleagues in the department, the contributors, the panel of reviewers and the readers. We are fortunate enough to have a highly esteemed peer review committee who, in spite of their very busy schedule, provided thorough and critical inputs for each and every paper. I specially thank to our Professor A. Ghose, D. Sengupta, M. Sengupta and Md. Kutubuddin Halder for their silent dedication towards the shaping of the journal. As a big family we all tried our best to enhance and sustain the quality of the journal. In spite of utmost care, some limitations and incompleteness may crop therein. It is all due to our constraints to shoulder the responsibility to the perfection.

With warm regards,

Nimai Chand Maiti
Professor, Department of Education,
University of Calcutta

Choice Based Credit System for Quality Assurance in Higher Education

*Sanat K. Ghosh**

Abstract

The main purpose of the present theoretical paper is to discuss about the conceptual frame of the Choice based Credit System (CBCS) as the emerging concept in India higher education system. The context of evolution in higher education in India, its global challenges and concerns and need for paradigm shift for quality assurance in achieving the international standard have been discussed as the backdrop of adopting CBCS in our country. The evolving policy scenario at the national level and roles of the apex statutory bodies in Indian higher education and its related conceptual, structural and the implementation issues of CBCS in more than 400 higher education institutes (HEIs) having innumerable number of academic programmes and courses have been logically discussed. The conclusion is drawn on the basis of some challenges identified in introducing CBCS as an innovative reformation in Indian higher education system.

Key Words: Trend in Higher Education, Quality assurance in higher education, CBCS, SGPA & CGPA, Credit Transfer.

Introduction

During the last half century, the most significant trend is undoubtedly the dramatic expansion of higher education (HE) worldwide. In 1970, the UNESCO Institute of statistics (UIS) estimated that there were roughly 32.5 million students enrolled in higher education worldwide. In the year 2000, this estimation increased to nearly 100 million and in 2010 to 178 million. This trend indicates that about 4.3% average annual growth in tertiary enrolment, a very rapid growth when compared to the 1.6% average annual growth in the world population over the same period (UNDP, 2012). In the changing context marked by expansion of HE along with the liberalization, privatization and globalization (LPG) based economic activities, education has become a national concern with an international dimension. The

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Bengaluru Statement on Higher Education Quality Assurance (2016) has focussed to contribute in fostering trust beyond borders in higher education quality assurance to facilitate student mobility and thus, an urgent need is felt to enhance actions on issues of mutual recognition of qualifications and also the accreditation decisions of different countries.

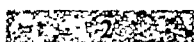
To cope up with the changing context of contemporary LPG economy, countries are being pressurized to ensure and assure quality of HE at a nationally comparable and internationally acceptable standard. Consequently, many countries initiated national quality assurance mechanisms, whereas India is now in the process of evolving a suitable strategy. It is the quality of HE that determines the quality of human resources in a country. HE as we find today is a complex system facilitating teaching, research, extension and international cooperation and understanding. There are also some genuine apprehensions among academics and civil society on the negative impact of adoption of managerial and market approaches of quality process to education. Appropriate quality may make HE more meaningfully relevant for both of its social transformative and individual development roles. Recently, the British Council has predicted the HE opportunities for global engagement. The status of top 10 countries is given below:

Table 1: HE Opportunities for Global Engagement: Status of Top Ten Countries

Rank	Domestic HE System		International Student Mobility – Outbound		International Student Mobility – Inbound	
	Year in 2020	Growth in 2030	Year in 2020	Growth in 2030	Year in 2020	Growth in 2030
1.	China*	India*	China*	India*	USA	Australia
2.	India*	China*	India*	Nigeria	UK	UK
3.	US	Brazil	S. Korea*	Malaysia*	Australia	USA
4.	Brazil	Indonesia*	Germany	Nepal*	Canada	Canada
5.	Indonesia*	Nigeria	Turkey	Pakistan*	Germany	Within Top 10:
6.	Russia	Philippines*	Malaysia*	Saudi Arabia	France	China*,
7.	Japan*	Bangladesh*	Nigeria	Turkey	Japan*	Malaysia* &
8.	Turkey	Turkey	Kazakhstan	Iraq	Russia	India*
9.	Iran*	Ethiopia	France	Zimbabwe	China*,	
10.	Nigeria	Mexico	USA	Angola	Malaysia*, Singapore* & India*	

* Asian Countries;

Source: Going Global, British Council, 2012.



The above table indicates the scope of India's position in HE in the world perspective. If it is viewed in the context of LPG economy, India has a huge probability. But, the present limitations in our HE system should be minimized and the quality of HE must be assured as soon as possible. Thus, some reformative measures are essential for the Indian HE System.

Recent Trends in Indian HE

India has witnessed a consistently high rate of economic growth and thus has become a major player in the global knowledge economy (World Bank Report, 2003). Education in India stands at the cross roads today, neither normal linear expansion nor the existing pace and nature of improvement can meet the need of the situation (NPE, 1986). HE has been critical to India's emergence in the global knowledge economy. Yet, it is believed that a crisis is plaguing the Indian HE system (NKC, 2006). Recommendation of National Knowledge Commission to ensure quality of higher education has called for reformation of existing higher education institutes (HEIs) to ensure curricular revisions, introduction of course-credit system, enhancing reliance on internal assessment, encouraging research, and reforming governance of institutions. According to Mr. Pitroda (2006), *"There is today a need for a transition to a course-credit system where degrees are granted on the basis of completing a requisite number of credits from different courses, which provides learners with choices"*

The 11th Five Year Plan (FYP) evolved a move towards a quantum leap in expanding the higher education system, expanded from 20 Universities and 500 Colleges with 0.1 million students in 1947 to 611 Universities/ University level institutions and 31,324 Colleges with 13,642 million students in 2011. Average growth rate of student enrolment in HEI since 1984 is more than 5% per year. Allocation of Fund (in lakh) for HEI – allotted Rs. 4,31,580.00 (1st Plan) & Rs. 20,369.84 97.40, an increase from 7.7% (10th Plan) to 19.4% (11th Plan). The UGC in its 12th FYP Guidelines (2012) had focused on several measures to bring equity, efficiency and excellence in the HE system of the country including innovation and improvements in curriculum, teaching-learning process, examination and evaluation systems, besides governance and other matters.

It is found desirable to introduce uniform HE system which will facilitate student mobility for equitable access across the HEIs within and across countries and thus, the potential employers can objectively compare and assess the performance of the candidate as a student. To bring the desired uniformity in grading system and methods of evaluation and computing cumulative grade point average (CGPA), UGC has formulated the guidelines for adopting the CBCS throughout the country.

Vision and Missions of Indian HE

The vision of higher education in India as identified by the Ministry of Higher Education (MHRD) is to realize the country's human resource potential to its fullest with equity and inclusion. This essentially means the need to provide greater opportunities of access to higher education with equity to all eligible, and in particular, to the vulnerable sections of the society. The initiatives will be capped with enhancing inputs for quality and excellence in all spheres of HE, viz., student intake, faculty enrichment, curricular and evaluation reform, revamping governance structures, greater emphasis on research and innovation by creating efficient regulatory framework.

In accordance with the vision, the missions of Indian HE have been identified in three broad areas:

Access:

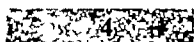
- i. Growth of gross enrolment ratio (GER) by 10% during the 12th FYP,
- ii. Correcting regional, disciplinary and gender imbalances,
- iii. Introducing affiliation reform norms of UGC,
- iv. Working with new model of public-private-partnership (PPP).

Equity and Inclusion:

- i. Elimination of gender inequalities,
- ii. Promotion of inclusion,
- iii. Improving access for differently able students,
- iv. Promoting equity in all disciplines of general and technical/ professional education,
- v. Reducing regional/ disciplinary imbalances.

Quality and Excellence:

- i. Reform agenda have been identified to focus on – (i) Teaching and learning, (ii) Discovery and innovation (iii) Engagement with social concerns;
- ii. Structural and systemic reforms in the HE system,
- iii. Reformation through introduction of semester system, grading, choice-based credit system, examination system, accreditation, etc.,
- iv. Generating a knowledge Indian society,
- v. Preserving the autonomous character of a University,
- vi. Development of centres for advanced studies,
- vii. Formation of internal quality assurance cells (IQAC) in each of the HEIs.



Maintaining Quality in HE

University Grants Commission:

University Grants Commission (UGC) with its statutory power is expected to maintain quality in Indian higher education institutes. Section 12 of the UGC Act, 1956 requires UGC to be responsible for “the determination and maintenance of standards of teaching, examinations and research in universities.” To fulfil this mandate, the UGC has been continuously developing mechanisms to monitor quality in colleges and universities directly or indirectly. In order to improve quality, the UGC has established national curricular framework, research facilities, Academic Staff Colleges to re-orient teachers and provide refresher courses in subject areas and also conducts the national eligibility test (NET) examinations for setting standards of teaching in HEIs.

National Policy of Education (NPE) and Programme of Action

The Programme of Action (PoA, 1992) stated, “As a part of its responsibility for the maintenance and promotion of standards of education, the UGC will, to begin with, take the initiative to establish an Accreditation and Assessment Council as an autonomous body”. After 8 years of continuous and serious deliberations, the UGC established NAAC as a registered autonomous body in the year 1994 for maintaining quality in HEIs.

National Assessment and Accreditation Council

National Assessment and Accreditation Council (NAAC) has evolved a four-phase process of assessment of a unit of HEI/ Programme/ Department covering nationally evolved criteria for assessment on pre-determined seven criteria. Out of seven, at least four criteria viz., curricular aspect, Teaching, learning and evaluation, Infrastructure and learning resources, Student support and progression are directly related with the quality aspects of the HEIs having about 55% weightage.

Adopting CBCS for Quality Assurance in HE

Why CBCS?

The major purposes of adopting CBCS are:

- Making a paradigm shift from teacher centric to learner centric education;
- Making the curriculum more inter-disciplinary/ multi-disciplinary;
- Enabling integration of concepts, theories, techniques, and perspectives from two or more related disciplines to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline;

- Providing the scope of learner-paced learning through flexible curricular structure for deep understanding;
- Providing scope of choosing electives from a wide range of courses selected from the extended mother discipline or other disciplines according to the ability and interest of the learners;
- Scope of studying additional courses and acquiring more than required number of credits according to the capability and choice of the learner;
- Provision of Inter College/ University transfer of Credits across the states of India and the also across the nations globally.

CBCS: Concept and Scope

CBCS as a holistic approach for reformation in Indian HE system has the following characteristics :

- i. It is a shift from conventional annual system to more flexible semester system in terms of designing curriculum, assigning credit based course contents and hours of teaching-learning.
- ii. It is a *Cafeteria Approach*, where learners have the autonomy to opt courses of their own choice according to their own learning needs, interests and aptitudes and they can learn at their own pace, undergo additional courses, acquire more than required credits and adopt an inter-disciplinary approach to learning.
- iii. The evaluation of the students provides credit linked grading system with the transcription of international standard.
- iv. It provides learner mobility facility across the HEIs within and outside the country as credits earned at one institution can be transferred to another for providing cross-cultural learning environment.
- v. It is more student centric as it may upgrade educational and occupational aspirations of the upcoming generation.
- vi. The CBCS seems to be more objective, scientific and beneficial for the whole educational process including curricular structure, curriculum transaction and curriculum evaluation.
- vii. Since it may develop quality of education, CBCS is essential for Indian HE system in the present context.

Definitions of Some Key-Words

- i. *CBCS*—The Indian Higher Education Institutions have been moving from the conventional annual system to semester system. Currently many of the institutions have already introduced the CBCS. The semester system

accelerates the teaching-learning process and enables vertical and horizontal mobility in learning. The credit based semester system provides flexibility in designing curriculum and assigning credits based on the course content and hours of teaching. The CBCS provides a 'cafeteria' type approach in which the students can take courses of their choice, learn at their own pace, undergo additional courses and acquire more than the required credits, and adopt an interdisciplinary approach to learning. It is desirable that the HEIs should move to CBCS and implement the grading system.

- ii. *Course* – Usually referred to as paper, is a component of an 'academic programme' (traditionally termed as course) now referred to as a 'Course'. All courses need not carry the same weight, which should be determined by the concerned experts according to the learning objectives and learning outcomes of the course/ programme. A course may be designed to comprise of different learning activities for curricular transactions, viz., Lectures, Tutorials, Laboratory works, Field works, Outreach activities, Project works, Skill training, Viva, Seminar, Laboratory works, Field works, Outreach activities, Project works, Skill training, Seminars, Term papers, Assignments, Presentations, Self-study Reports etc. or a combination of these according to the nature of the course.
- iii. *Credit* – It is the weightage given to a course, usually in relation to the instructional hours assigned to it. This is a unit by which the course works are measured. It determines the number of hours of learning activities required per week by the student in a semester. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work.

Planning Curriculum under CBCS

Curriculum planning is basically development of course contents according to the following five broad categories with the assigned pre-determined credits :

- i. *Core Course (CC)*: There may be a Core Course in every semester. This is the course which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a discipline of study. The purpose of fixing core courses is to ensure that all the institutions will follow a minimum common curriculum so that each institution/ university adheres to common minimum standard. Also the courses designed under this category aim to cover the basics that a student is expected to imbibe in that particular discipline.
- ii. *Elective Course (EC)*: Elective course is a type of course which can be chosen from a pool of courses. It may be Supportive to the discipline of study, providing an expanded scope and also enabling an exposure to some other

discipline/ domain and/ or nurturing student's proficiency/skill. Each University has complete freedom to suggest their own courses under this category based on their expertise, specialization, requirements, scopes and needs. The University/ Institute may also offer discipline related elective courses of interdisciplinary nature with the main discipline/subject of study.

- a. An elective may be 'Discipline Specific Elective Course' (DSEC) focusing on those courses which add generic proficiency to the students. At least six DSE courses for PG, four courses for honours/ advanced UG programme and two courses for general/ pass UG may be chosen from a pool of DSE courses which are very specific, specialized, advanced or supportive to the main discipline of study.
- b. Another type of elective may be chosen from any other discipline but related with the main discipline of study. It may be called 'Open Elective Course' (OEC). It provides an extended scope or which enables an exposure to some other discipline/ subject/ domain and nurtures the candidate's unique proficiency/ interest/ skill. The purpose of this category of courses is to offer the students the option to explore disciplines of interest beyond the choices they make in CC and DSE courses. The University has the complete freedom to suggest their own OCE (at least two) under this category of academic programmes based on their expertise, specialization, requirements, scope and need.
- c. *Dissertation/Project*: An elective course designed to acquire special/ advanced knowledge, such as supplementary study/ support study to a project work, and a candidate studies such a course on his/ her own with an advisory support by an expert faculty member is called dissertation/ project.
- d. *Practical*: One each with every CC and DSEC, the list of practical provided is suggestive in nature and each university has the freedom to add/ subtract/ edit practical from the list depending on their faculty and infrastructure available. Addition will however be of similar nature.

In this context, it may be noted that a CC offered in a discipline/ subject may also be treated as an elective by other discipline/ subject of study and vice-versa and such electives may also be referred to as OEC.

- iii. *Foundation Course (FC)*: The FCs are basically pre-requisite for any academic programme, if required. It may be of two types – (a) *Compulsory Foundation Courses (CFC)* which are mandatory and based upon the contents that lead to enhancement of comprehensive knowledge and skill to the students in a discipline of study; (b) *Elective Foundation Courses (EFC)* are mainly value-based and aimed at man-making education.

- iv. *Skill Enhancement Course (SEC)*: These types of courses are value-based and/ or skill-based and are aimed at providing hands-on-training, competencies, skills, etc. Minimum four of these courses may be chosen from a pool of courses designed to provide value-based and/ or skill-based knowledge and should contain theory and laboratory based/ hands-on training/ field work etc. The main purpose of these courses is to provide life-skills training in hands-on mode so as to increase their employability. The list under this category may be suggestive in nature and each University has complete freedom to suggest their own courses under this category based on their expertise, specialization, requirements, scope and need. Minimum two and four SE courses each from a list of DSE and OE courses, respectively should be allotted.
- v. *Ability Enhancement Courses (AEC)*: AECs are based upon the content that leads to ability based knowledge or skill enhancement, viz., Environmental Science and English/ Hindi/ MIL Communication etc. These are compulsory for all disciplines.

Curricular Structure under CBCS :

On the basis of above discussions, the draft templates on UG and PG curricular structure following the CBCS structure are give below:

Table 2 : UG Curriculum on CBCS: A Draft Template

<i>Semester</i>	<i>CC (14)</i>	<i>AEC (2)</i>	<i>SEC (2)</i>	<i>DSEC (4)</i>	<i>OEC (4)</i>
1	CC 1	AEC 1			OEC 1
	CC 2				
2	CC 3	AEC 2			OEC 2
	CC 4				
3	CC 5		SEC 1		DEC 3
	CC 6				
	CC 7				
4	CC 8		SEC 2		DEC 4
	CC 9				
	CC 10				
5	CC 11			DSEC 1	
	CC 12			DESC 2	
6	CC 13			DESC 3	
	CC 14			DESC 4	

N.B: Suggested numbers of credits are given within parentheses.

Table 3 : PG Curriculum on CBCS: A Draft Template

Semester	FC (3)	CC (5)	Elective (Optional)		AECC	Total
			DSEC (5)	OEC (5)		
1	FC 1	CC 1	DSE 1		Audit/ Sit-through (NC)	Course: 07 Credit: 24
	FC 2	CC 2				
	FC 3					
2	FC 4	CC 3	DSE 2		Audit/ Sit-through (NC)	Course: 05 Credit: 15
	FC 5	CC 4	DSE 3			
3		CC 5	DSE 4	OE 1		Course: 05 Credit: 15
		CC 6	DSE 5			
4		CC 7	DSE 6	OE 2		Course: 05 Credit: 15
		CC 8	DSE 7			
Total	Course: 05 Credit: 15	Course: 08 Credit: 40	Course: 07 Credit: 35	Course: 02 Credit: 10	Course: 02 Credit: NC	Course: 24 Credit: 100

N.B: Suggested numbers of credits are given within parentheses.

Curriculum Transactions in CBCS

Following measures should be taken for maintaining minimum standard of curriculum transactions in CBCS format:

- Time-table to be framed according to the UG/ PG curriculum structure.
- Pre-determined credit-hours to be assigned against each of the courses/ units.
- Requisite human resources are to be engaged for quality curriculum transactions.
- Scope of inter-disciplinary studies should be provided.
- Project work, practicum or field study may be the significant component of the curriculum transactions.
- Required academic infrastructures should be provided by the HEIs.
- Close monitoring of the teaching-learning processes.
- Students' feed-back on curriculum transactions to be taken in periodic order for further academic planning.
- Continuous and comprehensive evaluation should be an integrated part of the curriculum transactions for formative evaluation.
- For non-credit courses 'Satisfactory' or 'Unsatisfactory' shall be indicated instead of the letter grade and this will not be counted for the computation of SGPA/CGPA.

Evaluation in CBCS

Evaluation, especially the CCE is an integral part of CBCS. It is instrumental in identifying and certifying the academic standards accomplished by a student and projecting them far and wide as an objective and impartial indicator of a student's performance.

The HEIs are currently following various methods for examination and assessment suitable for the courses and programmes as approved by their respective statutory bodies. In assessing the performance of the students in examinations, the usual approach is to award marks based on the examinations conducted at various stages (sessional, mid-term, end-semester etc.) in a semester. Some of the HEIs convert these marks to letter grades based on absolute or relative grading system and award the grades. There exists a marked variation across the colleges and universities in the number of grades, grade points, letter grades used, which creates difficulties in comparing students across the institutions. The UGC recommends the following system to be implemented in awarding the grades and CGPA under the CBCS:

Letter Grades and Grade Points: Two methods, relative grading and absolute grading, have been in vogue for awarding grades in a course. (i) The 'relative grading' is based on the distribution (usually on the basis of normal distribution) of marks obtained by all the students of the course and the grades are awarded based on a cut-off marks or percentile. Under the 'absolute grading', the marks are converted to grades based on pre-determined class intervals. To implement the grading system, the HEIs can adopt any one of the above methods though the absolute grading system is widely used.

10-Point Grading System: The UGC recommends a 10-point grading system with the following letter grades as given below:

Table 4: An Illustration of Percentage Point, Letter Grade Point and Grade Points in Absolute Grading System

<i>Percentage Point (Range)</i>	<i>Letter Grade Point</i>	<i>Grade Point</i>
> 85 %	O (Outstanding)	10
70 % to < 85 %	A+ (Excellent)	9
60 % to < 70 %	A (Very Good)	8
55 % to < 60 %	B+ (Above Average)	7
50 % to < 55 %	B (Average)	6
45 % to < 50 %	C (Below Average)	5
40 % to < 45 %	P (Pass)	4
< 40 %	F (Fail)	0
NA	Ab (Absent)	0

N.B. HEIs may decide the norm according to their policy.

A student obtaining Grade F shall be considered failed and will be required to reappear in the examination.

The Universities can decide on the grade or percentage of marks required to pass in a course and also the CGPA required to qualify for a degree taking into consideration the recommendations of the statutory professional councils such as AICTE, MCI, BCI, NCTE etc.

The statutory requirement for eligibility to enter as assistant professor in colleges and universities in the disciplines of arts, science, commerce etc., is a minimum average mark of 50% and 55% in relevant postgraduate degree respectively for reserved and general category candidates. Hence, it is recommended that the cut-off marks for grade B shall not be less than 50% and for grade B+, it should not be less than 55% under the absolute grading system. Similarly, cut-off marks shall be fixed for grade B and B+ based on the recommendation of the statutory bodies (AICTE, NCTE etc.) of the relevant disciplines.

Fairness in Assessment

Assessment is an integral part of the system of education as it is instrumental in identifying and certifying the academic standards accomplished by a student and projecting them far and wide as an objective and impartial indicator of a student's performance. Thus, it is the duty of a University to ensure that it is carried out in fair manner. In this regard, UGC has recommended the following system of checks and balances which would enable Universities effectively and fairly carry out the process of assessment and examination:

- i. In case of at least 50% of core courses offered in different programmes across the disciplines, the assessment of the theoretical component towards the end of the semester should be undertaken by external examiners from outside the university conducting examination, who may be appointed by the competent authority. In such courses, the question papers would be set as well as assessed by external examiners.
- ii. In case of the assessment of practical component of such core courses, the team of examiners should be constituted on 50 – 50 % basis. i.e., half of the examiners in the team should be invited from outside the University conducting examination.
- iii. In case of the assessment of project reports / thesis / dissertation etc. the work should be undertaken by internal as well as external examiners.

Computation of SGPA and CGPA

The UGC also recommends the following procedures to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) respectively:

- i. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e.,

$$\text{SGPA (Si)} = \sum (C_i \times G_i) / \sum C_i$$

where, C_i is the number of credits of the i th course and G_i is the grade point scored by the student in the i th course.

- ii. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.,

$$\text{CGPA} = \sum (C_i \times S_i) / \sum C_i$$

where, S_i is the SGPA of the i th semester and C_i is the total number of credits in that semester.

The SGPA and CGPA shall be combined rounding off to two decimal points and be reported in the transcripts.

An Illustration of Computation of SGPA and CGPA and Format for Transcripts**Table 5 : An Illustration for SGPA**

Course	Credit	Letter Grade	Grade Point	Credit Point
Course 1	3	A	8	$3 \times 8 = 24$
Course 2	4	B+	7	$4 \times 7 = 28$
Course 3	3	B	6	$3 \times 6 = 18$
Course 4	3	O	10	$3 \times 10 = 30$
Course 5	3	C	5	$3 \times 5 = 15$
Course 6	4	B	6	$4 \times 6 = 24$
Total	20			139

NB. The data give in the above table is hypothetical.

Thus, $\text{SGPA} = 139/20 = 6.95$.

Table 6 : An Illustration for CGPA

Semester	1	2	3	4	5	6
Credit	20	22	25	26	26	25
SGPA	6.9	7.8	5.6	6.0	6.3	8.0

$$\begin{aligned}\text{Thus, CGPA} &= (20 \times 6.9 + 22 \times 7.8 + 25 \times 5.6 + 26 \times 6.0 + 26 \times 6.3 + 25 \times 8.0) \\ &\quad / (20 + 22 + 25 + 26 + 26 + 25) \\ &= 6.73.\end{aligned}$$

- iii. *Transcript (Format)*: Based on the above recommendations on Letter grades, grade points, SGPA and CCPA, the HEIs may issue the transcript for each semester and a consolidated transcript indicating the performance of every individual student in all semesters.

Credit Transfer and its Dimensions

The credit transfer is a very significant aspect of CBCS. Until the system of credit transfer among HEIs is realised, the total implementation of CBCS would not be fulfilled. In this context, the credit transfer process and its related dimensions are discussed here with.

- i. *Lateral or horizontal*: When an individual student having successfully completed the courses included in an academic program at a certain level, is allowed to transfer his/ her achievement in some of these courses to another same-level academic program having these courses in common, this may be referred to as horizontal or lateral credit transfer.
- ii. *Vertical*: when an individual's performance in some course within a certain academic program at a particular level is carried over to a higher-level academic program having that or equivalent courses in common, this may be referred as vertical credit transfer (Career Laddering) making a provision for upward mobility of the learner is the rationale behind this dimension of credit transfer.
- iii. *Types of Credit Transfer*: It may be of two types:
 - a. *Intra-institutional*: When the process of credit transfer takes place within a university or institution, it may be called as intra-institutional credit transfer.
 - b. *Inter-institutional*: When the credit transfer process operates across the two or more institutions, this may be viewed as inter-institutional credit transfer.

There should be made an agreement between two HEIs, a sender and a receiver, that specifies how the sending institution's course or program will be accepted (for transfer of credits) at the receiving institution.

Challenges of Implementing CBCS

Some of the practical limitations in implementing CBCS in Indian HEIs may be sorted out as:

- It is complicated, especially in the context of shortage of teachers and infrastructural facilities in many of the HEIs.
- It is difficult to transform the curriculum for true interdisciplinary learning.
- Students should be mature enough to select the courses according to their respective choices and learning suited to their own pace.
- Number of courses assigned in the CBCS may be an overburden for the students as well as for the teachers.
- Unfortunately, a large section of Indian society as well as the HEIs are traditional and suffer from the problem of inertia and are, therefore, reluctant to accept any innovation, especially in education.
- The new system which is planned for implementation has not been clearly explained for accept once by the stakeholders.
- Additional time is required to prepare proper guidelines and manuals so as to enable the various stakeholders in understanding the new system.
- Protocol for smooth transfer or carry on of the acquired credits among HEIs within and outside the country for student mobility (horizontal and or vertical) are yet to be developed.
- Some of the additional questions in this regard are – (a) Is not it a more mechanized system? (b) Is it really a paradigm shift from teaching to learning? (c) Is it helpful for deep understanding of the content areas? (d) What about long duration skill based practicing subjects?

Conclusion

From the above discussions, it can be concluded that CBCS as a mandatory system in HE has developed a new outlook in the field of HE as a scope of qualitative improvement of international standard controlling some of the problems in HE practices in India. The basic motive of introducing CBCS is to expand academic quality in all aspects, right from the curriculum development to the learning-teaching process and to the evaluation of learning output. The new interdisciplinary approach may enable the students in integrating the concepts effectively - theories, techniques, and perspectives from two or more disciplines to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline. It is too early to say whether CBCS will be successful or not in the Indian context. But, it has created an aspiration of maintaining quality within a range among the HEIs with a parallel movement through credit transfer. The MHRD, UGC and NAAC have also taken initiatives to bring efficiency and excellence in our HE

System. Simultaneously, some of the vested interests that have been perpetuating in our HEIs for years still may exist in different forms and are expected to be controlled in the new format. More open discussions are needed for shifting from the conventional system to CBCS.

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Curriculum of Mathematic implemented by NCERT under the plan NCF-2005 at secondary level: An analytical study

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Abstract

This study is aimed to analyze the curriculum of mathematics at secondary level, especially the class X curriculum implemented by NCERT under the plan NCF 2005. In order to analyze the curriculum, the curriculum prescribed by NCERT and that previously prescribed by RBSE were compared. The design of the study was content analysis. The objectives of the study were (i) To compare both the syllabii topic wise to analyze the load and fundamental need of knowledge. (ii) To study the drawback of previously prescribed syllabus by RBSE leading to the felt need for a revised curriculum. (iii) To analyze the characteristics of the new curriculum of mathematics, designed to enable overcoming the drawbacks of the previously prescribed syllabus through the content analysis of both the syllabii. The following findings were obtained: The topic wise comparison of both curricula reveals that the burden of content is minimized and the core curriculums retained same as the fundamental needs of the discipline. The drawbacks of the previously prescribed syllabus are: Abstractness in the nature of content, repetition is emphasized, there is lack of freedom to think, unrelated and distances among branches, language is not clear, stress on memorization, difficulty level is not defined, learning objectives are not described properly, no place of creativity, no emphasis on revision, no place for individual differences., no information about assessment. The characteristics of the curriculum implemented by NCERT are : concreteness of the nature of content as pupil learns from concrete to abstract, method of learning is by thinking and complete freedom to think, effective organization of different branches, clarity about nature of discipline, complete developed language, study method is discovery, encourage creativity.

Thus this study clearly stated that there is an urgent need to revise the previously prescribed curriculum, and the curriculum implemented by NCERT

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is an effort to make mathematics discipline more clear and realistic and develop problem solving and logical thinking and refined attitude towards life.

Introduction

In mathematics the art of posing problems is easier than that of solving them.

George Contor

The mathematicians who are merely mathematicians reason correctly, but only when everything has been explained to them in terms of definition and principles. Otherwise they are limited and insufferable, for they reason correctly only when they are dealing with very clear principles.

Blaise Pascal

Bruner says child is not a living library instead of storing the content in his mind, we need to inspire him to apply practices, so that the boringness of study diminishes enthusiasm increases in the child.

Narendra Vaidya (1976) defined curriculum as the requisite content of knowledge arranged systematically for progressive acquisition. It encompasses the total life of the child so far as the school can influence it or should take responsibility for developing it; the specialized environment deliberately arranged for directing the interests and abilities of children towards effective participation in the life of the community and the nation. It is concerned with helping children enrich their own lives and contribute to the improvement of the society through the acquisition of information, skills and attitudes; the learning experiences which children and youth have under the direction of the school; the sequences of potential experiences set up in the school for the purpose of disciplining children and youth in groups; ways of thinking and acting; the continuous activity of the individual interacting with the environmental factors about him, learning or changes in behavior that occur in the chain of a series of experiences; the systematic arrangement of courses designed to meet the need of a pupil or a group of pupils; the complete school environment involving all the courses, activities, reading and associations furnished to the pupils under the guidance of the school; all the learning experiences provided by the school, class study, health, recreation services and guidance services; social inheritance organized for its rapid assimilation by immature minds; the means to attain the aim of education, viz. the complete humanity for the attainment of a full life; and all the experiences which take place under the sponsorship of the school.

According to secondary education commission (1954) “curriculum is much more than the boundaries by the academic subject taught traditionally. It should include totality of experience that the pupil receives through the manifold activities that go on in the school, in the classroom, library, laboratory, workshop, playground and in numerous informal contacts between teachers and pupil. In this sense the whole life of the school becomes the curriculum and helps in the evolution of balanced personality.”

Curriculum is the reflection of the societal and National needs. As the nation progresses, explosion of knowledge comes arises, creating a new paradigm and generating a need to change the curriculum. The task of curriculum construction involves the selection of right experiences for the learners which will lead to the attainment of educational objectives. It includes not only the course content, resources and material for the purpose but also guidelines on the methods and approaches to the teaching of the subject. According to the Cunningham.” Curriculum is the tool in the hands of the artist to mould his material according to his ideals in his studio.” Thus curriculum is the tool in the hands of the teacher, the artist, to give shape to the material, the students. Curriculum is an evolving concept i.e. It is always in the making, being more in the nature of process than a finished product. It informs us what to teach before we consider methods and approaches to teaching and the age at which the various ideas are to be introduced. According to Smiths, Stanley and Shore, there are four significant dimensions essentially to be considered when one talks of curriculum development: determination of educational directions, choice of principles and procedure for selecting and ordering the potential experiences comprising the instructional programme, the selection of a pattern of curriculum organization, the determination of principle and procedures by which changes in the curriculum can be made. Curriculum changing is an integral part of the education process. After a certain time we feel the need to change the curriculum due to many reasons like advancement in technology and techniques exploration of knowledge creating a need to merge that new techniques knowledge. Also, there are continuous efforts made by the Government to revise the curriculum. Ergo The National Curriculum Framework was finalized in 2005 to change the curriculum.

The curriculum should be flexible and dynamic and should give more importance to the immediate needs of the individuals as well as the society and provide for their future needs too. Care should be taken in organizing the course content so that learners understand the basic concepts, principles and definition and applications in everyday life.

According to this, Mathematics should be realistic and natural and the pupils must enjoy doing mathematics instead of bored. Hence efforts to make to Mathematic teaching more operational and dynamic are continued. Kothari commission (1964) coded that mathematics has an important place in modern education and in the progress of the nation also. So there is need that curriculum of Mathematics should be such that enables the pupil to gain practical and realistic knowledge.

Objectives

1. To Compare the topics in the syllabus of mathematics implemented by Rajasthan secondary education Board and NCERT
2. To study the drawbacks of the Syllabus of Mathematics implemented by Rajasthan Board of secondary education.
3. To Study the characteristics of the syllabus of Mathematics.

Methodology

In order to achieve the above objectives, content analysis of the syllabus of Mathematics implemented by Rajasthan Board of Secondary education and NCERT was done.

Objective wise content analysis

Objective 1: To compare the topics in the syllabii of Mathematics implemented by Rajasthan Board of Secondary Education and National council for Education, Research and Teaching .

Analysis: In the RBSE the Content of Mathematics of Class 10th is organized in the two books as Maths-I and Maths-II while that of NCERT is organized in one book. To indentify the common content of the two boards as well as the new content included in the NCERT syllabus the topics the syllabii were compared from textbooks.

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1. Content which is similar in both RBSE and NCERT are linear equation of two lines, ,Polynomials, Binomial equations, circle, Geometry of the circle, area related to the circle, Co-ordinate Geometry, Trigonometry, Applications of Trigonometry, Surface Area, volume and statistics,
2. Content which is not added in NCERT syllabus but existed in RBSE previously: Vedic Mathematics, Matrices, Share, Multiple Interest, Paralloiped, cube, cuboid, cylinder, cone, loss and profit , field book.
3. New Content which is added in Syllabus prescribed by NCERT but does not exist in RBSE Syllabus: Real lines, Parallel series, Triangle, probability

This Comparison showed that most of the content of Mathematics is the same due to the need of fundamental knowledge. In the new syllabus the load of content is reduced by eliminating of 10 or 12 topics and only four new topics are added instead.

In this way, through new syllabus has attempted to reduce the load of content, but efforts to give fundamental knowledge of Mathematics to the pupils have been made..

After this we can compare the content in this way.

S.No.	Previous Syllabus	New Syllabus
Nature	Abstractness	Concreteness
Way to learn	Repitition	Thinking
Freedom	Lack of freedom to think	Complete freedom to think
Organization	Unrelated and distance among the branches	Effective organization of different branches and
Specificfness of content	Lack of clarity about the Nature of discipline	Clarity about the Nature of discipline
Language	Not clear	A completely developed Language
Study method	Stress on memorization	Discovery about appropriate method through research

In this way we can conclude that through new syllabus innovativeness is applied and effort is made to make the curriculum become thinking generating, innovative based and more practical.

Objective 2: To study the drawbacks of previous syllabus by Rajasthan Board of secondary education.

Analysis: The following drawbacks of the syllabus are found.

- Learning objectives are not described in detailed. Wherever the learning outcomes are described, they are not clear and not related with classroom teaching, Mention is made as principle of teaching or in generalized form.
- The sub topics are organized in logical order in syllabus but the difficulty level and description about that is not given. For example, the topic loss and profit or simple interest can be discussed at different levels accordingly, so its difficulty level should be mention
- There is no instruction about expected achievement level after imparting instruction in the syllabus.
- There are no suggestive activities for the students and no instruction about their attitudes.

- There is emphasis on the revision but which part of content should be revised or which part of content should be retaught..There is no direction in this regard.
- Arithmetic, Algebra and trigonometry are not correlated with each other. As The content of these are mentioned in such a way, they seems to be independent discipline.
- There is complete freedom for the textbooks writers about difficulty level, style of writing and detail or description. They can write the text books as they think it should be because there is no guidance provided in the curriculum in this regard.
- There is rigidity in the curriculum. The teacher is unable to get flexibility with the content according to the individual differences. Teachers have no freedom to adjust their teaching according to class need.
- It is possible that Mathematics can be taught through life related problem. The problem discuss in the text books are out dated, and are not involved with the new fact related problems.
- The practical work related to the content should be mentioned in detailed so that pupil will be able to gain experiences about the facts and concepts of Mathematics and get speed and direction in their thinking. But there is lack of such description in the curriculum.
- There is no information about the assessment pattern or the techniques needed for the evaluation.
- There is negligence of gifted children as there is no enrichment programme for them mentioned in the curriculum.
- What activities can organize outside the class room related with the content should be suggested in the curriculum.

Objective 3. To study the characteristics of the curriculum of Mathematics implemented by NCERT.

Analysis

- There is emphasis on integration of the content and the content is organized in integrated form.
- There is important place for creativity, as the curriculum gives opportunities to the student to create something new.
- On the basis of transformation, Application of Algebra, geometry and trigonometry and statistics emphasized.

- During the problem solving, mental mathematics is practiced, because through mental maths pupils can take the decision about the related concepts and calculate by thinking.
- To give pupils practical knowledge, there are appropriate practices about the application of the concepts with clarification.
- The problems are framed in such a way that during the solving of the problem pupils follow the steps of problem solving and gain information and skill.
- The content is organized at three levels. Practical level, deductive level and logical level or sequential level so that the ability to learn can be developed.
- Practice is necessary to understand the principles and operations. Practice work is systematic and planned in the new curriculum, interesting as well.

So many efforts have been made to clarify more and more about concepts, assumptions, principles, operations, calculations and activities so that individual differences can be diluted and the class can become homogeneous.

Conclusion

It can be concluded that the curriculum of Mathematics has become more practical, flexible, interesting and actually gives opportunities for learning by doing and is more related to real life. This curriculum *is able to develop logical thinking and problem solving skills and positive attitudes towards life.*

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Educating Our Boys: Chronicle of the Elias Meyer Free School and Talmud Torah

*Kaustav Chakrabarti**

Abstract

Calcutta, for a long time, has had the reputation of being the cultural capital of India. This was primarily owing to the presence of a large number of educational institutions that contributed not only to the spread of knowledge among the city's inhabitants, but also contributed greatly to the task of national regeneration. Calcutta, being a colonial city and once the second largest city of the British Empire, was the earliest recipient of Western education. Practically all the ethnic communities made an effort towards the task of educating their brethren. Though Christians had a preponderant say in the field of public instruction, yet one community made all possible effort in taking advantage of the new mode of knowledge. This was the Jewish community of Calcutta. This paper seeks to explore the educational and literary activities of the community, particularly with regard to the role played by its boys' school, generally known as the Elias Meyer Free School and Talmud Torah.

Key Words: Jews, Calcutta, Talmud Torah.

Introduction

The Jewish Community of Calcutta contributed extensively towards building and consolidating the rich socio-cultural heritage of the city through the creation of social and cultural infrastructures like schools, hospitals, baby clinics, women and youth organizations. Breaking social taboos, they were stimulated by the attractions of western education and took up modern professions. A school for Jewish boys was accordingly contemplated and eventually set up in 1882. It was started by Elias David Ezra and was called Ezra's Benevolent Institution. It was ultimately called the Elias Meyer Free School and Talmud Torah after its principal benefactor, Elias Meyer, a wealthy businessman of Singapore. From

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the day of its inception, the school was primarily oriented towards the poor of the community and provided various subsidies to its students, both to minimize the influence of Christian missionaries, as well as to preserve the 'good name' of the community. Its objects were the cultivation of the Hebrew language, religious traditions and enough education to fit the poor children of the community into the responsibilities of adult life.² There was provision of a mid-day meal for children, it being realized that ill-fed children cannot be educated.³

Mode of Instruction

The School imparted primary education in English and Hebrew, a daily meal was given on school days and the children were clothed twice a year on Passover and Rosh Hashanah (the Jewish New Year). Reading, writing, grammar, dictation, composition, translation, scripture and arithmetic comprised the curriculum. English was taught up to standard IV under the European Code for Bengal.

Background to the Institution

The history of the Talmud Torah may be considered in four periods, the first from its foundation as a Benevolent Institution, to the death of the founder in 1886, during which time it was maintained at the founder's sole expense. During the next period, the Institution drifted into the hands of the community due to the lack of support from the sons of E.D. Ezra and the name was changed to Talmud Torah.⁴ The affairs of the Institution were thereafter managed by Moses Abeasis, A.E.N. Judah and A.E. Gubbay, till his death in 1907.⁵ This period was a most critical one in the affairs of the Institution. The cry for education for the children of the poor was loud and the formation of a special Christian Hebrew mission School provided a humiliating spectacle.

A picture of the inadequacy of the educational facilities for Jewish children (due to the lack of funds only a limited number of children could be admitted and Talmud Torah held classes up to Standard III only) may be had from I.A. Isaac in *The Voice of Sinai*, July 8, 1904:

² *Calcutta Community Institution No.2, The Elias Meyer Free School and Talmud Torah* by Selrach, *Shema*, Calcutta, June 1947, Vol.2, No.1, p.6

³ Ibid

⁴ Ibid

⁵ Ibid

⁶ Ibid

“With a population of more than 2000 in Calcutta we have no school for our boys; they are left to the mercy of Christian missionaries and those of the middle class who attend Christian schools are blackmailed by being charged over and above the sum paid by Christian children. Some time ago when it was rumoured that the missionaries were going to open a boarding school for indigent Jewish children we raised a hue and cry at the very idea, but since then have we stirred ourselves even an inch to relive their want?”⁶ Again, Mr. Isaac wrote in the “Hebrew” June 14, 1907 in an article entitled “THE HORRORS OF HURRIAHUTTA”: “An Opportunity for a Millionaire” “You have just to go into the heart of Hurriahatta leaving the Parsee Hotel and here you will find horrors shocking to the civilized world.” “Behind the screen of this “City of Palaces” there abounds untold misery and degradation...” “As soon as the child passes the crawling stage, he is sent by his parents either to a Hebrew Mission School contributed and controlled by the Christians where free education is imparted, or to a sort of a Jewish School called Talmud Torah, where there is the only advantage of getting one meal free with niggardly or no education at all.”⁷ “These young souls are found at almost any time prowling around Jewish houses for pice. Most of them are half-nude and those of them who have clothes are dirty and in attires. Look at their faces, they look bright and promising with doubtful destiny in store for them. Once this spirit of beggary is stamped into their system they find it very hard, nay impossible to lift themselves to lead a life of usefulness. If men are so very degraded, we leave our readers to imagine the condition of the weaker sex, who entirely depend upon their lords for support and protection.”⁸ The Baghdadi Jewish community has been categorized as ‘prosperous’; however, ironically, perhaps half of the community was poor and dependent on Jewish charities.⁹ The other half was divided between the middle class (about 35%) and the wealthy, the affluent and the opulent.¹⁰

⁶ Ibid

⁷ Ibid

⁸ Ibid

⁹ Jael Silliman, *Jewish Portraits Indian Frames Women's Narrative From a Diaspora of Hope*, Seagull, Calcutta, 2001, p.28

¹⁰ Ibid

The Poverty Commission set up by the British Government also included in their programme the investigation of poverty among the Jews of Calcutta.¹¹ The Commission noted in its observation that, “there can be no doubt that great destitution prevails among the Jewish poor in Calcutta. They are scattered in and about the neighbourhood of Canning Street and Ezra Street, but their headquarters (sic) are in Hurrinbari Lane and Chinapara, where they live in a state of utmost filth, and do not live morally. We fear altogether clean lives. These Jewish poor have come mostly from Baghdad, a city notable for a floating population of the *budmash* (rogue) type, and some such budmashes one may encounter in the environs of Coloohtolah.”¹² The Commission obviously did not take a charitable view of the extent of destitution faced by the community, despite its apparently ‘sympathetic’ stand, and some of its observations could not veil the patronizing attitude prevalent in British official circles. For instance, beggary was rife in the community among the early immigrants from Baghdad and Basra. The Commission did not fail to take notice of this social problem, but its attitude with regard to this demonstrated nothing but contempt. In its observations on the state of misery being faced by the Jewish poor of Calcutta, the Commission further goes on to add- “It must not be supposed that the wealthy Jews of Calcutta have done nothing for their brethren in misery. On the contrary, they have cheerfully consented to give from their purse, and even to be blackmailed till now. But, no one likes to part with his money under threats, and with abuse and contumely for reward, and this is just the attitude which the Jewish poor have taken up recently... The wealthy Jews have been regularly taxed by their poor brethren. Professional beggars from Jerusalem known as *Hakhams*, men learned in the Hebrew religious lore, but generally devoid of anything else, even of outward cleanliness, visit Calcutta every year. They have been to Bombay previously, and made there what they have to call a good “list” or collection. In Calcutta, they collected their hundreds as well, and next year they send other *hakhams* from Jerusalem on the annual round of religious blackmailing...”¹³

¹⁰ Ibid

¹¹ *The Jewish Question in Calcutta*, *The Statesman*, Calcutta, July 15, 1891, in *The Statesman 100 Years Ago*, July 15, 1991

¹² Ibid

¹³ Ibid

The second period in the history of the Talmud Torah ended with the death of A.E. Gubbay. The new period opened with a Committee of nine, including Ezra Arakie as Hony Secretary and M.A.Sassoon as Hony Treasurer. Re-elections were to be held every year at a general meeting of subscribers. The School continued its shaky existence until 1907, when it was taken in by Ezra Arakie, a barrister and Cambridge graduate. The remarkable courage and energy of Ezra Arakie typifies the history of the following years stretching down to the time of his death on the 1st of May 1942.¹⁴ Methodic in his works and painstaking in his ways, under Ezra Arakie's management, the progress of the school was underway. From an establishment with a doubtful future, Talmud Torah became a very stable institution financially.¹⁵ From teaching only up to Class III it soon ran classes up to the Cambridge School Certificate Exam, and in later years, even had a Board of Apprentice Training Primary Exam Class.¹⁶ Owing to Ezra Arakie's steady work and keen interest, the school had its own premises and a large three-storied building of its own. A great deal of credit must however, also go to Elias Meyer, a millionaire of Singapore who in 1924 donated the land and half the cost of the three-storied building comprising the school premises at No.50 Bowbazar street.¹⁷ In token of this gesture, the name of the School was changed to the "Elias Meyer Free School and Talmud Torah."¹⁸ In 1939, Mrs. Flora Meyer donated the sum of Rs. 375,000 in terms of the trust deed, which is now the operative constitution of the school.¹⁹ Success also marked the initiation of the Scout Movement in the Talmud Torah. The School Scout Troop was for many years, the model troop in Calcutta.²⁰ The School sent four scouts to the All India Jamboree held at Delhi on 1st February 1937.²¹ With the advent of the Second World War and the Independence of Israel, the exclusively Jewish character of the School underwent a change.²² Due to the large scale exodus of the Calcutta Jews to Israel and

¹⁴ Ibid, p.7

¹⁵ Ibid

¹⁶ Ibid

¹⁷ Ibid

¹⁸ Ibid

¹⁹ Ibid

²⁰ Ibid

²¹ *The Jewish Advocate*, Bombay, February, 1938, Vol.8, No.11, p.12

²² Isaac S.Abraham, *A Short Account of the Jews of Calcutta*, SenDaw&Co., Calcutta, 1969,p.40

other countries, the number of pupils in the School diminished considerably. With too few pupils and too many teachers, it was becoming uneconomical to run the institution.²³ Thus it was decided to take in non-Jewish children but only on a paying basis.²⁴ The benefit of the trust fund was exclusively reserved for the Jewish students. This brought a welcome source of revenue to the school and helped to offset the losses incurred in maintaining the hostel which had too few boarders. It also helped to raise the teachers' salaries and improve the school's amenities.²⁵ Notwithstanding its success in the community, the Jewish Boys' School never got the popularity unlike the Jewish Girls' School, which attracted a large number of community members. The boys' school was limited only to the poorer sections of the Calcutta Jews. The sons of the elite usually went to missionary schools like La-Martiniere, St. Josephs' and St. Xavier's' and a few even went to North Point and Mt. Harmon in Darjeeling. Abraham Cohen, a student of St. Josephs' High School of Calcutta and the son of M.E.Cohen, took first place in the Preliminary Cambridge Examination. He obtained distinction in Religious Knowledge, Latin, Geometry, Algebra and Drawing.²⁶ Presently, the Boys' School is affiliated to the Central Board and is being run by the Jewish Association. There are no Jewish pupils on their rolls, though the number of students have increased many times over.

The State of Education in the Jewish Community

The early settlers of the community were not well educated. They knew just enough to carry on their day-to-day business. Formal education among the older members of the community usually stopped at fifteen or sixteen. Academic qualifications were not considered necessary to the main business of life. In fact, instances of dropouts were not rare. In contrast to the old timers, many members of the younger generation went out into the world to make their own fortunes on completion of college education. From that time onwards, higher education began to be seen as a passport for a better life and overall progress of the self and community. The majority of graduates worked in the concerns of the Jewish firms like David Sassons'; E.D.Sassoons'; Curlender's and B.N.Elias's. The B.N.

²³ Ibid

²⁴ Ibid

²⁵ Ibid

²⁶ *The Jewish Messenger, Calcutta*, Vol.1, No.1, Friday, April 25, 1913, p.12 (Available at the Jewish National and University Library, hereafter JNUL)

Elias and Co. was by far the largest employer of Jewish professionals in Calcutta and the neighbourhood. Jewish men worked as clerks, assistants, managers and even directors in these organizations. There were very few Jewish professional men. This was in sharp contrast with the Armenians of Calcutta. For instance, we have a list of 25 Armenian High Court Advocates between 1855 and 1891, 8 Solicitors (1856-91) and six doctors in the Indian Medical Service.²⁷ The 1915 Thacker's lists four Jewish barristers and one solicitor.²⁸ The rate of literacy was also much higher among Armenians than Jews-86% in 1911 compared to 60% among Jews.²⁹ Since 1891, female education made satisfactory progress among the Jews.³⁰ The distribution of literate male and female population among the adherents of Jewish faith in 1901 as compared with 1881 and 1891 is as follows:

Percentage of Literates

Jew	1881	1891	1901
Male	63.5	62.9	65.9
FEMALE	29.3	36.2	44.8

Source: *Census of India* 1901, Vol.8, Part IV Report (Statistical): Calcutta Town and Suburbs by J.R. Blackwood, p.57³¹

Taking both the sexes together, about 69.3% of the Jews were literate in Calcutta and the suburbs. By 1921, majority of the Jews could read and write English.

Vocational Education

The Jewish Association of Calcutta established a technical training school for Jewish boys. It gave training to the boys from the age of fourteen upwards in electrical engineering.³² The course lasted one and a half years, on the completion of which the boys were expected to earn about Rs. 150 a month.³³ The ORT (Organization for Rehabilitation through Training) offered to lend assistance to the scheme by agreeing to meet 80 percent of the capital expenditure and 60

²⁷ Thomas Timberg, *Jews in India*, Vikas Publishing House, New Delhi, 1986, p.34

²⁸ Ibid

²⁹ Ibid

³⁰ Ibid

³¹ Available at the National Library, Kolkata

³² Shema, January 1949, Vol. 3, No. 8, p.16

³³ Ibid

percent of the recurring expenses of the proposed school.³⁴ In pursuance of the decisions of the ORT Committee to establish a Vocational Guidance And Placement Bureau, Mr. S.R. Ghosh, Second Master of the Elias Meyer School and Talmud Torah was appointed officer concerned with the work.³⁵ He was co-opted as an ex-officio member of the ORT Committee.³⁶ The other members of the Committee were as follows:

Mrs. A. E. Solomon, Miss R. M. Luddy, Mr. R. Isaac, Mr. A. Aaron, Mr. S. Ezra, Mr. M. Wekslar, Rev. D. G. Raymond, Mr. B. V. Jacob (Hony Secretary).³⁷ The aims and objectives of the Committee were to popularize technical education among boys of the community, assisting them in choosing a technical profession suitable to their interests and aptitudes, find for them places in different technical institutions and render monetary assistance for these purposes, where necessary.³⁸ A drive for recruitment to technical schools was undertaken and within a fortnight 17 names were registered.³⁹ Jewish firms were approached through Shema to give these boys a chance of serving as apprentices in factories and workshops.⁴⁰ Some of the intending candidates for technical training were examined psychologically for their general intelligence, mechanical aptitudes and personality traits, by arrangement with the Applied Psychology Department of the University Science College. Quite a few of the boys tested very well though they were branded as 'never-do-wells' in the classroom.⁴¹ Of the 17, 6 secured suitable jobs. Of the remaining 11, 4 underwent training as automobile engineers and 3 as radio mechanics and wireless operators.⁴² Of the remaining 4, one was too late to make up his mind to join the Calcutta Engineering College for his Electrical Engineering Course.⁴³ The other three had very little education and before any suitable apprenticeship could be secured for them, they made up their mind to leave Calcutta.⁴⁴

³⁴ Editorial, ORT Proposal, *Shema*, February 1949, Vol. 3, No. 9

³⁵ *Shema*, March 1949, Vol. 3, No.10, p. 7

³⁶ *Shema*, January 1950, Vol. 4, No. 8, p.9

³⁷ Ibid

³⁸ Ibid

³⁹ Ibid

⁴⁰ Ibid

⁴¹ Ibid

⁴² Ibid

⁴³ Ibid

⁴⁴ Ibid

Hostel Accommodation

The Jewish Boys' Hostel was officially opened on Sunday, 19th June 1949 with a short but impressive ceremony.⁴⁵ Situated on the top floor of the Elias Meyer Free School and Talmud Torah, arrangements were initially made for the fifteen boarders of the school.⁴⁶ The brief opening started with the singing of the "Habu Ladonai" conducted by Rev. D.G. Raymond followed with the benediction. Mr. B. V. Jacob, Hony Secretary of the School told his listeners that this hostel was just a beginning and its future development would depend largely on the interest of the community. The visitors were treated with light refreshments and spent the rest of the evening with the young folks who were perfectly at ease and happy in their new home.⁴⁷

Conclusion

On the whole, whatever may have been the socio-economic differences in the community, the sense of fellow feeling outweighed all petty considerations as each and every member strove towards its betterment, albeit, within his or her means. The sense of being Jewish dissolved all artificial barriers, because to every member, the community was 'home'. In this respect welfare and philanthropy alongside education took the center stage. Education provided not only a window to the outside world, but also a ticket to freedom and dignity within the constraints a colonial society. Apart from the examples set by the Hindu and Christian communities in their endeavour to educate their brethren, the Jewish community of Calcutta also took heart from the winds of change sweeping across the Diaspora particularly in the West. As the Western Jews tasted the fruits of emancipation and civil rights in their countries of residence, the Jewish community of Calcutta, although suffering no discrimination in British India, nevertheless were eager to get out of the inertia and prove themselves to be responsible and progressive citizens of the country. Education and knowledge provided the keys to a better and dignified existence. Thus when India attained independence and Israel attained her statehood, this intellectual capital proved to an asset of immeasurable consequence.

⁴⁵ *Shema*, June 1949, Vol. 4, No. 1, p.12

⁴⁶ *Ibid*

⁴⁷ *Ibid*, p.15

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Impact of Yoga Practices on Visually Impaired Students in Elementary Level School

*Sohini Ghosh**

Abstract

In the present quasi-experimental study, the main aim was to find out the impact of some Asanas in terms of sensory perception and self-esteem of the Visually Impaired (V.I.) boy and girl learners studying in the elementary level at class VIII. The purposively selected 20 students of class VIII, ten each from one special school for boys and one inclusive school for girls from greater Kolkata area were taken for the interventions with the select activities of the "Integrated Yoga Module for Healthy Living" (IYMHL, NCERT). The Yogic practices of 35 mins. per working day for six months consisted of. (1) Breathing Practices (5 mins.) including Hands stretch breathing, Ankle stretch breathing, Rabbit breathing, Sasakasana breathing and Instant relaxation technique; (2) Loosening Exercises (5 mins.) including Jogging, Forward and backward bending, Side bending, Twisting, Pavanamuktāsana Kriyā and Quick Relaxation Technique; (3) Sūryanamaskāra (2 mins.) (4) Yogāsana (10 mins.) in Standing & Sitting postures with Deep Relaxation Technique; (5) Preparatory Practices for Pranayama (3 mins.) with Kapālabhāti Kriyā and Vibhāgīya Pranayana, and (6) Rrabindra Sangeet with Meditation (5 mins.). The findings of the pre-test and post-test study design indicated significant gain among boy and girl V.I. students on the criteria of mean sensory perception and Self-esteem (Sorensen) Scores of the V.I. learners.

Introduction

Yoga is an ancient Indian practice which involves moving the human body and training the mind to achieve balance and well-being in life. The purpose of traditional yoga practices is to develop each individual to be healthy, both physically and mentally, and to make him or her capable of reaching the highest potential as a human being. The term *Yoga* has its verbal root as *Yuj* in Sanskrit. *Yuj* means joining and thus, *Yoga* is that which joins. In the traditional terminology it is joining of the 'individual self' with the 'universal self'. It is an expansion of the narrow

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constricted egoistic personality to an all pervasive, eternal and blissful state of 'reality'. Thus, *Yoga* is a systematic process for accelerating the growth of an individual in his or her entirety. With this development, one learns to live at a higher state of consciousness.

Yoga is a process of gaining control over the mind. Control involves two aspects – a power to concentrate on any desired subject or object and a capacity to remain quiet for quite some time. In action, *Yoga* is a special skill which makes the mind to reach its subtler state: '*Yoga karmasu kauśalam*' (Gītā 2.50). *Yoga* is dexterity in action. The dexterity is in maintaining relaxation and awareness in action. Relaxed action is the process. Efficiency in action is an outcome. Thus, it is a skilful science of gaining mastery over the mind. *Yoga* is popularly known as a process or a technique to reach the ultimate state of perfection. However, it is sometimes even defined as the state of higher powers and potentialities and even as the ultimate state of 'silence'. Furthermore, *Yoga* is also described as the power of all creative endeavours and creation itself (NCTE, 2015).

Yoga is – (i) Mastery over Mind, (ii) Leaping into higher states of consciousness and (iii) Learning to stay and act a tuned to these states.

Yoga is a psycho-somatic-spiritual discipline for achieving union and harmony between our mind, body, and soul and the ultimate union of our individual consciousness with the universal consciousness (Mahadevan, Balakrishnan, Gopalakrishnan & Prakash, 2008). *Pranayama* is derived from two Sanskrit words, namely, *prana*, which means vital force or life energy, *ayama* means to prolong.

When a person practices *yoga*, with *yogic* attitude (attitude of patience, persistent practice, overcoming obstacles within self, that is, trouncing laziness, anger, delusion, and desire for being different or better than others), there are several changes in physiology (Tandom, 2012). In a study to assess the immediate effect of three *yoga* breathing techniques on performance of a letter-cancellation task, the authors reported that there were improved scores and fewer errors on letter cancellation task and suggested that *yoga* practice could bring improvement in the task which requires selective attention, concentration, visual scanning abilities, and a repetitive motor response (Sarang SP & Telles S., 2007). A study on performance of participants on mirror-tracing task found that the *yoga* group had improved reversal ability, eye-hand co-ordination, speed and accuracy which were necessary for mirror star tracing (Telles, S., Praghuraj, P., Ghosh, A., & Nagendra, HR., 2006). Another study conducted to assess changes following two *yoga*-based

relaxation techniques reported a reduction in the peak latencies after yoga based relaxation technique and indicated that yogic meditation enhances cognitive processes (Sarang, SP & Telles S., 2006).

Left-sided unilateral forced nostril breathing led to right-hemisphere dominance and improved spatial skills while maneuver on opposite side showed left hemisphere dominance with improved verbal skills (Jella, SA., Shannahoff-Khalsa, DS., 1993). Practicing *asanas*, *pranayama*, meditation, and *tratakas* (concentrated gazing practices), and attending devotional sessions for 10 days led to a significant improvement in fine coordinated movements (Telles S., Hanumanthaiah, BH., Nagarathna, R. & Nagendra, HR., 1994). Yoga practices for a month not only led to a reduced degree of optical illusion created by Muller-lyer lines and raised the critical fusion frequency but also improved neural performance and higher critical fusion frequency indicating reduced fatigue and stress level (Telles, S., Nagarathna, R., Vani, PR. & Nagendra, HR., 1997).

Objectives of Yoga Education

In India, for the school level, the following objectives have been identified by the NCTE:

- To remove ignorance (or lack of awareness of reality from life, egoism, attachment-detachment, fear of death, and elimination of the 5 afflictions from life.
- To enter into a state of highest consciousness that manifests in life as *Satya* (Truth), *Bodha* (Pure Consciousness), *Gnyana* (Absolute Knowledge), *Ananda* (Bliss), and *Prema* (Love).
- Awakening to the real Self.

Yogic Practices and School Education

Yoga is science and art of realizing the absolute, i.e., the ultimate reality or supreme consciousness; Holistic living, i.e., physical, mental, emotional, intellectual, social and spiritual wellbeing and science of HHH, that is health, harmony and happiness. Holistic Health consists of physical, emotional, mental, intellectual, social and spiritual well-being. Harmony is both inner harmony (body, mind and emotion) and outer harmony (social, professional). Bliss is the permanent state of happiness or the state of bliss (*ānandamaya*) as the stage of self-realization. Thus, *Yoga* is a general methodology for the growth of man to divine heights which includes

techniques useful for therapeutic applications in making man healthier, happier and blissful. These are:

- (i) Deep relaxation at muscular level brought out by *Asanas*,
- (ii) Slowing down of breath and maintaining balance brought out by *Pranayama* and breathing practices,
- (iii) Increasing creative and will powers at mental level brought about by meditation,
- (iv) Sharpening the intellect and calming down the mind at intellectual level by notional correction and listening to discourses (*Jnana Yoga*),
- (v) Enhancing the happiness in life and equipoise at emotional level brought about by *bhajan*s, *dhun*s and devotional sessions (*Bhakti Yoga*) and
- (vi) Manifesting the innate divinity in man in all aspects of life brought about by following the rules of *Karma Yoga*.

Integrated 'Yoga' Module for Healthy Living

NCTE (2015) has recommended the following pool of *Yoga* practices for school-going students out of which one can select ten or twelve core *āsanas* and a few other core practices for a daily practice schedule. One or two other practices can be added to the core practices, rotation-wise in such a way that the total time of the practice remains constant. Generally, the total time could be 30 minutes to 45 minutes daily with following practices:

- Breathing Practice,
- Loosening Activities,
- *Suryanamaskara*,
- *Yogasana* (with standing, sitting, prone & supine postures),
- *Pranayama*,
- Devotional songs &
- Meditation.

In the context of Inclusive Education policy adapted at the national level, the basic research question has been identified regarding “Integrated *Yoga* Module for Healthy Living” (IYMHL) as – “whether *yoga* has any impact on visually impaired learners at the elementary level in terms of their sense perception and self-esteem as these are very important aspects of future education of the children with special needs (CWSN).”

Objectives

O₁ To study the impact of *Yoga* practices with IYMHL on sense perception of the VI learners at the Elementary level;

O₂ To study the impact of *Yoga* Practices with IYMHL on self-esteem of the VI learners at the Elementary level;

O₃ To study the impact of *Yoga* Practices with IYMHL on self-esteem of the VI boy and girl learners at the Elementary level;

Hypotheses

⁰H₁: There is no significant mean difference between the pre-test and post-test scores on Sense Perception of the VI learners of elementary level through the IYMHL intervention of *Yogic* practices.

⁰H₂: There is no significant mean difference between the pre-test and post-test scores on Self-Esteem of the VI learners of elementary level through the IYMHL intervention of *Yogic* practices.

⁰H₃: There is no significant mean difference between the boys and girls on the gain in Sense Perception scores of the VI learners of elementary level through the IYMHL intervention of *Yogic* practices.

⁰H₄: There is no significant mean difference between the boys and girls on the gain in Self-Esteem scores of the VI learners of elementary level through the IYMHL intervention of *Yogic* practices.

Methods

Design: The method of Quasi Experimental Design was followed in the study.

Sample: A total 20 V.I. students studying in Class VIII, viz., 10 in a Special (boys') school and 10 in Inclusive (girls') school were selected purposively from the Kolkata Metropolitan Development Authority area.

Variable: Intervention through *Yogic* Practices with IYMHL was the treatment variable, gender was the categorical variable and the two dependent variables were Sense Perception and Self-esteem of the target learners.

Tools: The modified IYMHL Schedule of NCTE (2015), Self Perception with Hearing, Smelling, Testing and Tactile Tests for the VI Learners and the Braille version of the Sorensen Self-Esteem Test (Ghosh, 2016) were used as tools of the study.

Procedure

The slightly modified IYMHL practiced by the VI learners of elementary (class VIII) level for six months (January to July) daily for 35 minutes at the beginning of the school day consisted of —

No. Practice	Practice Rounds	Duration
1. Breathing Practice		5 mins.
Hands stretch breathing	3 × 3	1 min.
Ankle stretch breathing		1 min.
Rabbit breathing	5	1 min.
Śasākāsana breathing	5	1 min.
Instant Relaxation Technique	IRT	1 min.
2. Loosening Exercises		5 mins.
Jogging		2 min.
Forward and backward bending	10	20 sec.
bending	10	20 sec.
Twisting	10	20 sec.
Pavanamuktāsana Kriyā	5 × 8 + 10 + 10	1 min.
Quick Relaxation Technique	QRT	1 min.
3. Sūryanamaskāra	3	1 min.
4. Yogāsana		13 mins.
(i) Standing Postures:		
Ardhakati Cakrāsana both sides		1 min.
Trikonāsana both sides		1 min.
Trikoāsana both sides		1 min.
(ii) Sitting Postures:		
Pāścimottānāsana		1 min.
Urāsana		1 min.
Vakrāsana both sides		1 min.
Ardha Matsyendrāsana		1 min.
(iii) Prone Postures:		
Bhujagāsana		1 min.
Śalabhāsana		1 min.
(iv) Supine Postures:		
Halāsana		30 sec.
Cakrāsan		30 sec.
Deep Relaxation Technique		3 mins.

5. Pranayama		6 mins.
<i>Sūrya Anuloma</i>		
<i>Viloma Pranayama</i>	5	1.5 min.
<i>Nāisuddhi Pranayama</i>	5	1.5 min.
<i>Śīṭali or Sadanta Pranayama</i>	5	1.5 min.
<i>Bhrāmarī Pranayama</i>		1.5 min.
6. Rabindra Sangeet		3 mins.
7. Meditation		2 mins.
Total		35 mins.

Results

The descriptive statistics of the obtained data on the pre-tests, post-test and gain in sensory Perception and Self-Esteem Tests through the interventions of boy and girl VI elementary learners with IYMHL are given below:

Table 1: Showing Sensory Perception Scores of Boys of Special School and Girls of Inclusive School in terms of Pre-test, Post-test and Gain

S. No. of Boys	Sensory Perception			S. No. of Girls	Sensory Perception		
	Pre-test	Post-test	Gain		Pre-test	Post-test	Gain
SS 1.	10	16	6	IS 1.	11	17	6
SS 2.	09	15	6	IS 2.	11	17	6
SS 3.	11	18	7	IS 3.	12	16	4
SS 4.	12	17	5	IS 4.	10	14	4
SS 5.	10	16	6	IS 5.	09	15	6
SS 6.	11	17	6	IS 6.	10	16	6
SS 7.	12	18	6	IS 7.	08	14	6
SS 8.	12	16	4	IS 8.	12	17	5
SS 9.	11	15	4	IS 9.	11	15	4
SS10.	13	17	4	IS10.	10	15	5
Total	111	165	54	—	104	156	52
Mean	11.1	16.5	5.4	—	10.4	15.6	5.2
SD	3.69	5.22	5.49	—	1.04	4.93	5.27

Note: Score Range: 0 to 20.

Table 1 indicates that both the boy and girl VI learners were benefitted in terms of sensory Perception Scores and also reveals that boys achieved better than the girls.

Table 2: Showing Self-esteem Scores of Boys of Special School and Girls of Inclusive School in terms of Pre-test, Post-test and Gain

S. No. of Boys	Self-esteem			S. No. of Girls	Self-esteem		
	Pre-test	Post-test	Gain		Pre-test	Post-test	Gain
SS 1.	27	17	10	IS 1.	24	17	07
SS 2.	40	29	11	IS 2.	25	17	08
SS 3.	42	30	12	IS 3.	35	20	15
SS 4.	29	15	14	IS 4.	30	17	13
SS 5.	16	10	06	IS 5.	28	14	14
SS 6.	29	17	12	IS 6.	26	15	11
SS 7.	21	15	06	IS 7.	18	10	08
SS 8.	29	19	10	IS 8.	26	18	08
SS 9.	33	20	13	IS 9.	38	24	14
SS10.	16	11	05	IS10.	24	13	11
Total	282	183	99	—	274	165	109
Mean	28.2	18.3	9.9	—	27.4	16.5	10.9
SD	6.04	6.12	3.27	—	9.88	5.33	3.56

Note: Score Range 0 to 50; High: below 16; Moderately Low: 16-18; Severely Low: 19 and above.

Table 2 indicates that both the boy and girl V.I. learners were benefitted in terms of Self-esteem Scores and also reveals that girls achieved better than the boys though the average condition of learners' Self-esteem is found to be moderately low.

Table 3: Showing t-values Between Different Groups

S. No.	Groups	Criterion	t-value	Significance*
1.	Pre-test Vs. Post-test	Sensory Perception	2.14	$P < 0.05$
2.	Pre-test Vs. Post-test	Self-esteem	240.5	$P < 0.01$
3.	Boys' Gain Vs. Girls' Gain	Sensory Perception	6.45	$P < 0.01$
4.	Boys' Gain Vs. Gils' Gain	Self-esteem	64.0	$P < 0.01$

*From t-table, for df 18, p at .05 is 2.1 and p at .01 level is 2.88.

Using alternative method of t-statistics for small ($N < 30$) sample, according to Table 3, all the four null hypotheses are found rejected as significant mean differences are found. Thus, it may be inferred that there is a tendency of positive impact of IYHML or *Yoga* on development of Sensory Perception and Self-Esteem of the elementary VI learners.

Discussion

Undoubtedly, the present study cannot draw any confirmed conclusion due to very small sample and lack of measures of controlling intervening variables, but its inferences may be a significant indication not only in the field of *Yoga* Education but also in the field Inclusive Education, the two most significant thrust areas in education at present. The enhancement in Sensory Perception and Self-Esteem of the VI learners through *Yogic* practices needs to be further verified through practices at wider levels, and extensive as well as intensive research findings may focus new light in the near future. There are definitely some reasons to be optimistic, if parents, teachers, special teachers, teachers of physical education, educational administrators, educational policy-makers, national and state level apex bodies join hands to come forward to resolve the issue.

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Legal Education: Toward Pedagogy of the Lawyer beyond Courtroom

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Abstract

In the context of educational research, professional education in general, or professional legal education in particular, appears to be one among least explored area of study. Plenty of otherwise unconnected variables in legal education jointly and severally contribute to create a camouflage and thereby exclude the same from the mainstream educational research in practice. The author hereby explores major variables operative in professional legal education and thereby characterizes them to prompt education to take the sui generis course toward complete travesty of very object and purpose education is meant for; viz. bringing in the enlightenment for individual learner and the public good for all stakeholders in society. In the name of profession, legal education is reduced to technical knowhow of the given legal system, to learn means and methods for individual dividend of the law practitioner out of the system at the cost of public good that the system is meant for. Also, the author thereafter draws a rudimentary roadmap for emancipation of the temple of law from its priests behind the cloak of profession. Instead, legal education ought to bring in emancipation for its subjects; something yet to get initiated towards the epiphany for the rule of law and better governance. The author pleads for justice education as a newer genre for professional legal education in liberal democratic governance. After all, the law is meant for its people and not vice versa. Also, as a constitutional institution, the court of law ought to transcend its judicial trapping to turn into the court of justice for the people. Legal education plays a critical role as changing agent to this end.

Key Words: education, profession, career, community, public good.

Introduction

Since the very beginning of introduction of the common law tradition in British India, by courtesy colonization of the subcontinent under the East India Company, foreign procedural jurisprudence commenced its ordeal- albeit with drudgery (if not vagary) of its own- to replace the local tradition of informal system vis-à-vis dispute resolution with *de minimis* cost and delay. Neither there were middlemen

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between the adjudicator and the adjudicated to meddle with subject matter and thereby get the same more complicated than ever before. Indeed, there is no intention of the author to get the same elevated to sacrosanctity. Also, there was no second opinion that the local tradition could well get contested for lacuna of its own, e.g. absence of objectivity, settled principles of law, uniformity of pronouncements, etc. A major rationale behind introduction of foreign legal tradition, however, lay in language disconnect between the ruler and the ruled that rendered communication between them problematic. Also, due to want of orientation with the local cultural tradition, the foreign judiciary went into wilderness to cope with the essence of disputes filed before them. Consequently, reliance on native advocates- conversant with local language and customary tradition- went heavier than elsewhere. Here lay the context that prompted the colonial regime to initiate legal education in India; not without reason was (i) legal education was introduced as professional education; (ii) institutional curriculum introduced the common law tradition; also (iii) the medium of instruction for legal education was English alone (sic.) to groom these middlemen for administrative convenience of the foreign judiciary. Thus, since its inception, law emerged as a subject meant for professional education and thereby, fell into the domain of technical education under the Constitution of India. By default birthmark, therefore, priority of such legal education lay in serving the cause of administration of justice rather than the cause of those seeking justice. Here lies the crisis in Indian legal system and, to do away with the same, if at all, legal education needs to transcend fault lines inbuilt within the given pedagogy, pedigree, profession, and the like, to get recalibrated as a *pro bono* discipline beyond the courtroom.

A moot point of this effort lies in the potential of legal education as an academic discipline and thereby bringing in the same within the fold of general education to recalibrate the same with better pedagogy that suits the soil of this region and its people at large. Unlike the Westerners, here there is a pervasive trend in the commoners to hoodwink the law of the land in one way or other. Indeed, with no ill intention to legitimize the trend, caveat may reasonably get advanced that there is strong sociological reasoning behind the reason for the foreign jurisprudence- both substantive and procedural- not being rooted to local tradition. The common law tradition got imposed upon the society and its people by those in power with top-down approach. In the given discourse of legal education, professional legal education in the technical sense of the term, learners are hardly exposed to larger fiction of the law as social, and albeit political, apparatus.

Inbuilt limits of professional education

The scheme, as per its constitutional governance, technical education is a subject matter in the sovereign domain of the Union legislature- Parliament of India in colloquial terms- and governed by respective statutory regimes (Constitution, 1950).¹ Thus, state legislatures are out of the scene in the matter of legal education since the same is run as professional education and thereby falls in the class of technical education. There are two regulatory institutions to govern legal education. So far as the Bachelor of Law (LL.B.) degree is concerned, a substantive part is governed by the Bar Council of India (BCI) while the residual part is governed by the University Grants Commission (UGC, 1956).² Higher degree programmes thereafter, not getting coverage as professional education, are governed by UGC alone as is the case of all other subjects under social science disciplines in general education. So far as curriculum of the LL.B. programme is concerned, there are professional ethics where value education is taught to promote a sense of obligation toward the profession (BCI, 1975).³ Interestingly enough, there are dedicated provisions for duty to diverse stakeholders;⁴ except anything dedicated for duty to the society since the same is beyond the system. Whether and how far such professional legal education is meant to serve the society and its people, therefore, raises a moot point to this end. Indeed, as corollary to duty, there are provisions vis-à-vis professional misconduct- whatever is counterproductive for professional

¹For details, refer to Entry no. 64-66 of List I, read with Entry No. 25 of List III, Seventh Schedule to the Constitution of India, 1950. Available at: <<http://lawmin.nic.in/coi/coiason29july08.pdf>> last visited on March 14, 2017.

²*Vide* the University Grants Commission Act, 1956, along with rules and regulations. Available at: <http://www.ugc.ac.in/oldpdf/ugc_act.pdf> Also, refer to the Advocates Act, 1961. Available at: <<http://www.barcouncilofindia.org/wp-content/uploads/2010/05/Advocates-Act1961.pdf>> Also, the Bar Council of India Rules. Available at: <<http://www.barcouncilofindia.org/wp-content/uploads/2010/05/BCIRulesPartItoIII.pdf>> last visited on March 14, 2017.

³The Bar Council of India Rules, Part VI, Chapter II: Standards of Professional Conduct and Etiquette. Available at: <<http://lawmin.nic.in/la/subord/bcipart6.htm#chapter2>> last visited on March 14, 2017.

⁴Section I- Duty to the Court, Section II- Duty to the Client, Section III- Duty to Opponent, Section IV- Duty to Colleagues, Section V- Duty in imparting training, Section VI- Duty to Render Legal Aid.

Ibid

standard- and the same constitute a substantial part of these rules.⁵ But, so far as social commitment of the legal profession is concerned, there is no provision in this regulatory regime.

While engaged in dealing with professional misconduct, Law Commission and the administrative side of the Apex Court of India went stoic to *pro bono* call of the society toward legal profession.⁶⁻⁷ The curriculum is not set to facilitate social commitment for the budding professional (Mitra, 2010).⁸ Instead, what prevails is a series of technical subjects, vis-à-vis substantive and procedural laws, across the curriculum, except the lip service of legal aid clinic as a grand gesture for elite law school pupils to bag foreign scholarships by demonstration of social obligation- more often than not paper work-more to serve the purpose of the professional than that of the underprivileged. In its recent judgment on misconduct, the effort initiated by the judicial side of the Apex Court came to naught while the proceeding got initiated to cut the unruly wings of legal professionals down to size (Goyal, 2009).⁹ The celebrated fiction of rule of law, if at all, stands undermined from within the legal profession rather than players elsewhere. Professional education is meant for grooming (read grouping) those after vested interests with little heed to wards larger public interests, and thereby devoid of the potential for social transformation where in lies the default potential of empowerment through tools and techniques of pedagogy available in the domain of general education. Therefore, there lies the imperative for a synergy of professional knowhow and education to serve the public interest as its teleological purpose.

⁵ *Vide* section 35 of the Advocates Act, 1961, read with section 24(b) of the Bar Council of India Rules, along with respective institutional rules of procedure concerned.

Ibid

⁶ Seventy Fifth Report on Disciplinary Jurisdiction under the Advocates Act, 1961, Law Commission of India dated 1978. Available at: <<http://lawcommissionofindia.nic.in/51-100/report75.pdf>> also, <<http://lawcommissionofindia.nic.in/Notice%20-%20regulation%20of%20legal%20profession.pdf>> visited on March 15, 2017.

⁷ The Supreme Court Rules, 2013, Order IV: (on) Advocates, with effect from August 19, 2014. Available at: <<http://supremecourtindia.nic.in/Supreme%20Court%20Rules,%202013.pdf>> last visited on March 15, 2017.

⁸ For details, refer to N. L. Mitra *et al.*, (Draft) Report of the Curriculum Development Committee (CDC), Volume I, prepared under the auspices of Bar Council of India, dated February 15, 2010. Available at: <<http://www.barcouncilofindia.org/wp-content/uploads/2011/08/cdc-report-web.pdf>> last visited on March 15, 2017.

⁹ In Re: Rameshwar Prasad Goyal, Advocate, *Suo Motu* Contempt Petition No. 312 of 2013, Civil Appellate Jurisdiction, Supreme Court of India, New Delhi, reportable judgment, Available at: <<http://supremecourtindia.nic.in/Supreme%20Court%20Rules,%202013.pdf>> last visited on March 15, 2017.

Purposive teleology for schooling the law

With the newer variety of prospects in the market in the offing, by courtesy of so-called liberalization-privatization-globalization (LPG), legal education deserves a metamorphosis: (i) in the pedagogy of hitherto legal education; (ii) also, in stakeholders vis-à-vis the regulatory regime itself. Accordingly, 1980s onward, public institutions established by provincial legislatures as national law schools on the one side, and giant private entrepreneurs with their respective brands on the other, appear on a gradual rise to experiment with newer genres of pedagogy in legal education. Thus, once among the last options, legal education stands elevated to one among the first for new generation careerists. These institutions being recognized, yet not sponsored by UGC, are thus relatively autonomous from the stereotypical “*sarkari*” regulatory regime. Learners avail the contemporary exposure beyond the courtroom law and thereby attain better career prospects in diverse domains with the magnitude beyond the reach of institutions which are within the pervasive clout of the regulatory regime; albeit exceptions apart. Analogy lies in difference between convent schooling and government schooling. The latter is run by bureaucrats and ministers while their children are more often than not sent to the former; harsh fact to reveal the harsh truth. Likewise, these new generation law schools receive learners with family background of the gentry running the routine regulatory regime meant for outdated past participate institutions.

These new generation institutions have had the cutting edge in their relative autonomy to run a pedagogy of their own and thereby maintain pace with international standards and best practices worldwide. While mundane institutions grapple with the challenge to maintain pace with pillars of pedagogy suggested by the regulatory regime which is out-dated in itself, new generation institutions make a mark for themselves with next generation experiments in pedagogy. Since the latter is driven either by the judiciary or the giant corporate houses, national elites for the time being in force, the regulatory regime never indulges in conflict for pragmatic reasoning apparent in the public sphere. With the class character of their own, new generation institutions glitter by default while their out-dated counterparts are sustained with the oxygen of erratic state subsidy and thereby get subjected to the mercy of the given political will. Whether or how far the state dares to defy market-driven force appears a moot point to this end.

So far as pedagogy is concerned, the forthcoming critique may get divided into two: teaching contents and teaching techniques of legal education. First, technical knowhow of the legal profession constitutes a considerable count in the course curriculum followed by regular internship programme to facilitate pupils marketing themselves before they get graduate degrees. New generation law schools are active enough to market their pupils through regular networking process with the prospective employers. Taken together, they deliver result and thereby develop

respective brands of their own to sell the same in time ahead. Those keen to join the Bench and the Bar-core areas of legal profession thereby get incentivized in new generation law schools. Those keen to join the market-driven sector-law firms, corporates offices, etc., get benefited in emerging institutions since new generation subjects-corporate law, intellectual property law, and the like appear side-lined, if not ignored, elsewhere for several reasons; want of competitive human resource being one among them. Also, modern law schools-these public-sector institutions in particular- recalibrate professional legal education to transcend the same beyond the courtroom and thereby generate academic legal education to bridge the gap between the law and its society. In a few among them, there are interdisciplinary experts to expose the next generation learners to hitherto least explored character of the law as means toward social control and, corollary potential to emerge as a progressive social transformation, provided the same is put in place with intention for intervention- to serve the purpose of systemic shift the to desired end. Accordingly, these law schools initiated the newer genre in teaching technology with wide variety of emerging means, e.g. subscription of priced online database, i.e. *e-library* in the technical sense of the term, to put into circulation world-class materials, creation of web portal to share knowledge- their self-generated resource- with rest of the world, circulation of study pack by tech-savvy members of the faculty, generation of academic literature through publication of cutting-edge contribution authored by them, outreach initiatives across the globe, to mention a few of them. All these taken together, with carnival, festival, legal aid clinic, moot court round, sports, and so on, law schools fly high with the given tailwind of self-financed autonomy in the firmament of creativity.

On its way to excellence, however, there are but headwinds to cause roadblock ahead. One among them lies in the given regulatory regime itself. In the wake of LPG age, there are few- too few- takers for conventional engagement in the Bench or in the Bar. Therefore, the age of legal education as professional education alone under supervision of BCI appears on the wane. Instead, there is an imperative for academic education as well to get introduced to legal education for social motivation and thereby pave the way toward social engineering, by courtesy Roscoe Pound (Mcmanaman, 1958),¹⁰ In the contemporary context of pervasive highhandedness of authoritarian statecraft, civil society movements need *pro bono* lawyers beyond their professional black cloak to uphold the law for justice. Even

¹⁰ Cf. Linus J. McManaman, Social Engineering: The Legal Philosophy of Roscoe Pound, St. John's Law Review, Vol. XXXIII, No. I, December 1958, Article I, pp. 1-47. Available at: <<http://scholarship.law.stjohns.edu/cgi/viewcontent.cgi?article=4478&context=lawreview>> last visited on March 18, 2017.

otherwise, after investment of seven-digit amounts to premier law schools, few law graduates prefer a seat in mainstream courtroom career in the Bench or in the Bar, whatever the case may be. For most of the crowd, law graduates are left with no other option but to rush for instant returns and thereby get back their hard-earned resources acquired either out of their parent's hard-earned purses or from commercial loans from the banking sector for higher study purposes in their own names. In either case, return of the same becomes paramount priority for them, rather than to serve the community at large or entering a mundane courtroom career with limited return for decades before earning an awesome package in a faraway future. What is more, the faraway future may get back such awesome dividend- if at all- for a handful few and not for all of them. With the newer law school lifeworld, academic legal education is a need of the hour and the concerned regulatory regime deserves institutional realignment accordingly. So far as academic legal education is concerned, enrolment in the Bar Council of India appears irrelevant since a lawyer may not necessarily be a judge or an advocate who graces the Bench or the Bar. With due respect to both, they prefer career calls of their own.

With a decade of experience in law school lifeworld, the author has come across the best among the best lawyers who do not have- or wish to have- professional enrolment to engage themselves within the courtroom. Instead, they prefer the widespread diversity outside the courtroom to practice the law. In particular, out of their default class character or the political economy of law schools, or both, the predominant trend for law school graduates nowadays lies much more in law firms and corporate consultancy than in other career choices; as per doctrinal brief (Mithel, 2013),¹¹ followed by empirical database (*infra*, Annex); and the same is in practice even after the so-called Lawyers' Welfare Award (LWA) got instituted for two candidates by the Supreme Court Lawyers Welfare Trust (SCLWT) worth rupees twenty five thousand (₹25000/-) for three years to support them while they struggle for professional standing in law practice before the Apex Court of India (Basheer, 2012).¹² The same resembles taking two drops away from the ocean of pacifism

¹¹ *Vide* Manasi Mithel, More Argumentative Indians, *businesstoday.in*, May 12, 2013. Available at: <<http://www.businesstoday.in/magazine/careers/litigation-as-a-career-option-is-increasing-in-india/story/194283.html>> last visited on March 18, 2017.

¹² In order to recognize and promote young talent in the field of litigation at the Supreme Court, the Supreme Court Lawyers Welfare Trust (SCLWT) has instituted two annual fellowships, known as the Lawyers' Welfare Awards. Shamnad Basheer, Courting Legal Talent by Offering Litigation Fellowships, *spicyip.com*, June 18, 2012. Available at: <<https://spicyip.com/2012/06/courting-legal-talent-by-offering.html>> last visited on March 18, 2017.

for professional legal education and thereby appears to be an acknowledgement of systemic crisis in the Indian legal system along with a clarion call for candid introspection to this end. One way of introspection lies in looking at legal education beyond professional education alone. In the given overflow of the temple of justice by its priests, academic legal education has had the potential to offer a roadmap to troubleshoot the crisis.

Toward the pedagogy of justice education

Justice education, by courtesy Madhava Menon, appears a contemporary buzzword in India to get rid of the given lapse underlying professional legal education (Mohan Gopal, 2009).¹³ Thus, after him, the teleological end of legal education ought not to stop in learning the law but also get extended to understand and appreciate justice with all its discursive variety. Indeed, this is a progressive trajectory for learners to receive critical legal education (Balakrishnan, 2009).¹⁴ At bottom, potential of this trajectory lies in teaching social engineering with the agenda to secure social justice and thereby put the ambitious mandate under the Constitution to fruition. Academic legal education consists of larger agenda, e.g. to advance cutting-edge jurisprudent insight with uncontested originality and regional relevance; persuasive enough for the rest of the world to follow the academic legacy in times ahead. For instance, in the absence of juridical treasure trove of their own, Indian law schools engage all sundry foreign schools of thought to date while those share remote relevance with the given regional reality; a blanket bankruptcy to bulldoze due eulogy of India (Baxi, 1976).¹⁵ The soft power thereby generated ought to get pervasive enough to balance dominance of the Occident in the intellectual domain. A litmus

¹³ For details, refer to G. Mohan Gopal (ed.), Prof. N. R. Madhava Menon's Reflections on Legal and Justice Education, Universal Law Publishing Co., New Delhi, 2009.

¹⁴ A meaningful university education must not only focus on classroom learning and examinations but should also encourage students to look beyond the social divisions of caste, religion, language, gender and class. ... Some of the main objectives of legal education are those of encouraging tolerancetoward different viewpoints, a capacity for critical inquiry as well as the willingness to resolve disputes through informed and constructive dialogue. Honourable Mr. K. G. Balakrishnan, Chief Justice of India, on the occasion of a programme in honour of Dr. N. R. Madhava Menon, organized by Society of Indian Law Firms and Bar Association of India, September 4, 2009. Available at:

<http://www.supremecourtfindia.nic.in/speeches/speeches_2009/award_for_dr_nr_madhava_menon_4-9-09.pdf> last visited on March 18, 2017.

¹⁵ Upendra Baxi, Notes Towards a Socially Relevant Legal Education- A Working Paper for the UGC Regional Workshop in Law 1975-1976, Journal of the Bar Council of India, Vol. 5 (1-3), 1976. Available at:

<<http://upendrabaxi.in/documents/Notes%20towards%20a%20socially%20relevant%20legal%20education.pdf>> last visited on March 19, 2017.

test for triumph of the legacy lies in reversal of student outflow to the West. Also, as another indicator, foreign mentors ought to avail academic incentives to exchange their respective resources with India. Until then, there is little space for complacency. Despite the apparent flash of their glitter, premier law schools are stuck to systemic faults of their own; not without reason that only a fingerful, not even handful, among them could transcend the threshold of academic mediocrity and thereby get engaged in pursuit of cutting edge juridical scholarship so far. Here lies the crux of this effort to underscore a vacuum, if not void, in legal education. The author has no ill will against the profession, or against professional education. This effort is meant to plead that there are but other means to impart legal education as well, and academic education is put to fray as one of them; to supplement rather than to supplant professional education as the so-called mainstream paradigm meant for legal pedagogy; albeit arguably.

A case study of NLSIU Bangalore- the so called premier institution for contemporary legal education may get illustrated for corroboration of the position mentioned above. From the reading of available database, progressive roadmap toward unconventional career preference by law graduates appears on the offing in the leading law school:¹⁶

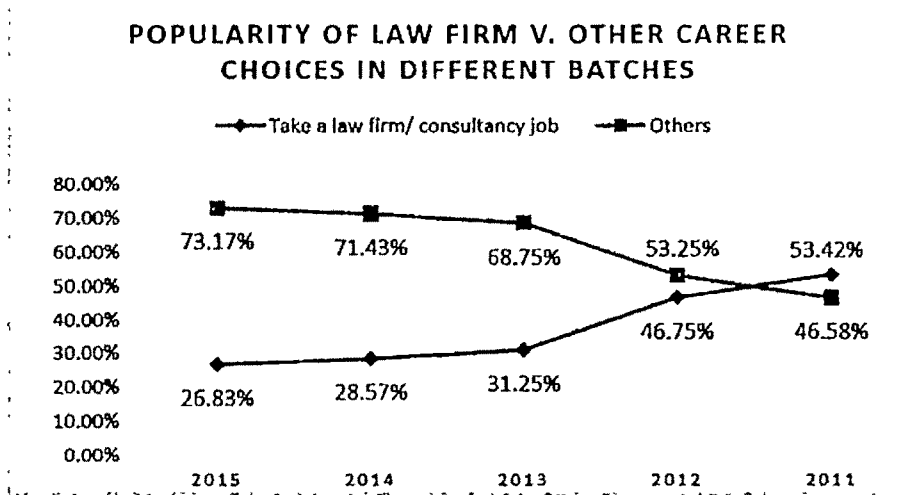


Figure 10-1: Distribution of population of law firm as compared to other career choices across batches

¹⁶ Prachi Shrivastava, Current NLSIU (National Law School of India University, Bangalore) grads prefer law firms and corporates ... as posted by Legallyindia.com, June 7, 2016. Available at: http://www.legallyindia.com/images/prachishrivastava/screenshot-2016-06-07-18.02.25_thumb_1633e2b5cf73128b5e41b5ac9bd3db4b.png last visited on March 19, 2017.

Indeed, the trend is yet to get set accordingly for other institutions with NLS brand across the country. Also, arguing on the elite class character for those who graduated from NLSIU Bangalore- compared to others who graduated elsewhere- may get advanced to contest the position. A trend is but set to turn the tide.

Conclusion

A critical question that is still left for the readership to grapple with is the conundrum of political socialization while getting the law imparted to the next generation lawyers as another branch of social science discipline. Thus, stakeholders of political culture dominant at any given point of time and space ought to attempt systematic propagation of their political ideology and thereby attain socialization of the same under the guise of value education. Hitherto practice that may get illustrated by initiatives through equilibrium of India with Indira (Gandhi), or colouring the course curriculum with the red epics on communism, or saffronization of the same with so-called wonder that was India. Taken together, all these constitute major issues and challenges ahead. Premier law schools are unlikely to get affected by these threats due to a class character of their own. Instead, for them, the hurdles rest elsewhere. They are likely to succumb to their own class character and thereby get complacent with their comfortable careers and family lives, and to get stuck to the Doll's House syndrome (Ibsen referred). Besides, they are likely to get stuck to the courtroom and thereby carry forward the Bleak House syndrome (Dickens referred) to succumb to the systemic pitfall since time immemorial. In both cases, however, there is no setback for those after academic legal education. Even during the best of times in course of civilization, pure academics is never meant for the crowd. This is by default limited to few, too few, who carry forward their mission for passage of the light of higher insight from prior generation to the next. Likewise, from historical reasoning across the world, premier law schools in India are presumed to follow the same tradition, vis-à-vis academic legal education, and thereby safeguard their institutional legacy in the wake of a market-driven economy for legal education. In their immediate interest, therefore, academic legal education, appears in the offing to get the state-sponsored legal regime beyond the Bleak House and thereby plant the same within its *in situ* setting of the society at large. After all, the law is meant for the people and not vice versa. With no ill will against its institutional legacy, courtrooms cannot afford to be the seat for law practice. The greatest lawyer of India transcended his law practice beyond courtroom and took entry to the mythology of truth. His unambiguous talisman appears on the threshold of academic legal education to learn lessons for the ideal state:

“May not men earn their bread by intellectual labour? No, the needs of the body must be supplied by the body. ... Mere mental, that is intellectual, labour is for the soul and is its own satisfaction. It should never demand payment. In the ideal state, doctors, lawyers and the like will work solely for the benefit of society not for self”.

—M. K. Gandhi

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Life, Livelihood and Education among the Katkari tribes of Maharashtra

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Abstract

The Katkari's are among the most marginalized tribes of Maharashtra with access to limited resources which contribute towards their social, educational and economic backwardness. The present paper focuses on the profile of the Katkari tribe through an analysis of their socio-economic indicators like literacy, work participation, livelihood, occupational pattern, health, poverty and migration. A pilot case study was conducted to study the living conditions, sources of livelihood and causes for low levels of education among the Katkari tribes of Godpapat Adivasi Wadi in Maharashtra which consists of 85 huts. Unstructured interview and direct observation were used as research methods to gather information about Katkari people and children. The study revealed impoverished living conditions, uncertain livelihood, provision for basic education in the hamlet yet interrupted education due to seasonal migration of parents in search of work. Relevant suggestions with implications for policies that focus on the solution to socio-economic and education problems of the Katkari's are suggested.

Key Words: Katkari tribe, poverty, livelihood, migration, education.

Introduction

The tribal people are the original inhabitants of India who mainly dwell in the forests surrounded by hills. They have their unique identity in terms of their own social structure; their own culture; their own language and possessing specific territorial affiliation.

The tribal zone in India is generally divided into three zones according to their distribution, namely, the north-eastern zone, the central zone and the southern zone. The north-eastern zone consists of the Himalayan region and the hill and the mountain ranges of North-Eastern India. The southern zone consists of that part of the Peninsular India which falls south of the River Krishna. The central zone

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occupies the central belt of the older hills and the plateaus along the dividing line between Peninsular India and the Indo Gangetic Plains' (Planning Commission, India, 2007).

The Katkari tribal group is categorised as a particularly vulnerable, primitive and tribal group in Maharashtra and are regarded as lowest in the social hierarchy by other Scheduled Tribes in the region. The 'Katkari' were first notified as Scheduled Tribe under the constitution (Scheduled Tribes) order, 1950. The Katkaris are predominantly found in districts of Raigad, Thane, Pune, Nashik and Ratnagiri in Maharashtra. (Tomar, 2004).

The Katkari's are among the most marginalised, deprived and poverty ridden tribes of Maharashtra with access to limited resources which contribute towards their social, educational and economic backwardness. In the present study, the researcher conducted a pilot case study to study the socio-economic indicators like livelihood, health, occupational pattern, migration and education of the Katkari tribes of Godpapad Adivasi Wadi in Maharashtra which consists of 85 huts. Unstructured interview and direct observation were used as research methods to gather information about people and children living in the Godpapad Adivasi Wadi.

Katkaris Living Conditions

Ghorpapad Adivasi Wadi is a tribal hamlet consisting of a total of 85 huts or families under Sudhagad Taluka of the Raigad district which is about 85 kilometres from Mumbai, Maharashtra. The researcher visited the houses of Katkari in Godpapad Adivasi Wadi which are located at the foot hills of the Sahyadri Mountains (Western Ghats). Their huts are made of thatched roofs, and unbaked brick walls which are usually kachha or semi-pukka with an area varying from 100 and 150 square feet. The flooring and walls of the houses are wiped with cow dung. The Katkari's use steel utensils and plates made out of leaf for cooking and eating meals respectively. The materials inside the house are very basic consisting of few utensils, some clothes flung on a rope and hunting and fishing equipment. The researcher found that the people there do not have proper sanitation facilities and are engaged in open excretion. They are dependent on a well for drinking water and in case of water shortage; they use water from open ditches especially during the monsoon season for various household purposes. This creates sanitation issues and often contributes to diseases like diarrhoea, dysentery, malnutrition, malaria, ringworm, intestinal infections, fever etc. When the researcher asked some of the tribal about the mode of treatment of diseases, the Katkari tribals said that they depended solely on traditional cure by using herbal plants, roots, barks of trees etc. with the traditional knowledge carried down through generations. There

is a primary government health care center in the nearest village, Jambhulpada (Two kilometres from Godpapad Adivasi Wadi), but the Katkari tribal revealed that they hardly visit the health center as they do not trust the efficacy of modern medicines. The Katkaris use wood for cooking fuel and have no electricity connections in their hamlet, though a facility for the same did exist in the nearby Jambhulpara village. So their households depend on kerosene lamps and the tribal said that they use these kerosene lamps sparingly during their children's study time and during meal times at night. A noticeable feature of their houses was that they had no fitted doors and there were no cases of theft reported in the local police station at Sudhagad Taluka. However, the women reported that high alcohol consumption among men lead to frequent domestic violence. Women were also not empowered. Their education was not given much importance and early marriage leading to subsequent early child birth was a common phenomenon among the Katkari tribal.

Katkaris Occupations

Since the Katkaris are predominantly a landless group, their traditional occupation for survival is hunting with primitive tools and collecting minor forest produces. Due to government policies to prevent de-forestation and resist depletion of natural resources, they have been forced to settle down at the foothills of the forests which have robbed them of their source of primary livelihood. The researcher found out after talking to some Katkari men that the present situation regarding their livelihood was that they are now engaged chiefly in two different occupations, not simultaneously, but in a rotational manner. From June to November (which is the agricultural season), they said that they work as agricultural labourers for other landed tribal ethnic groups in the nearby area, with the male members working as farm servants (known as gadi in the local language) and the womenfolk as daily paid labourers. The main produce of these lands are rice as the main crop and ragi, udid (pulses) and khurasni (a local variety of oilseed) as ancillary crops. However, they said that due to rainfall dependent agriculture and lack of irrigation opportunities, there is no scope for double-cropping in these farmlands and hence these Katkari tribals are rendered jobless at the end of each agricultural season. Therefore between December and May, the Katkari men migrate in search of livelihood to other regions (mostly to other parts of Maharashtra, Andhra Pradesh, Karnataka) and work in brick kilns for economic security and food security. This seasonal migration is purely for the purpose of survival and most Katkari men (around 98%) of Godpapad Adiwasi village along with their wives and children travel to other parts of the country to sustain themselves and their families. During

this period the Katkari men, women and even at times children work for private contractors (thekedars) in construction, stone-breaking units and brick kilns. The Katkari men further revealed that they have to work long hours, are underpaid with no healthcare facility and live in temporary shelters in extremely polluted and unhygienic surroundings. It is important to note that the Katkari children who migrate along with their parents receive no formal education during these six months of the year. They return to their hamlets in summer, that is, before the arrival of the next monsoon season.

When the researcher asked why the Katkari population did not avail the various government programmes and schemes for tribal development, they indicated that the government policies were not a dependable livelihood option for them. The researcher further found out that they had access to Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and Employment Guarantee Scheme (EGS) by the government but only in stone-breaking activity and not in agriculture-related work. The Katkari reported that due to uncertainty of the timing and duration of government work, if provided at all, and past experiences in delays in receiving payments due to not having a bank account, they preferred to work under private contractors instead. Moreover they confessed that the wage that is paid under the government schemes was lower than the wage rate available to them as migrant workers.

Education and Literacy

In 1997, the literacy amongst Katkaris was around 16 percent (TRTI 1997). Later, the literacy rate amongst the Katkaris was found to be 21 per cent (Kurane, 2009). The majority of Katkari hamlets have schools till the fourth grade only. The present literacy rate amongst the Katkaris as per the 2011 Census continues to be the lowest (41.7%) among all the tribal groups in the state of Maharashtra (TISS 2015).

Pre-primary and primary education system existing in the Ghorpapad Adiwasi Wadi is worth appreciating. The hamlet has a well-equipped Anganwadi which is located in a one pucca house. There are a total of 25 children in the Anganwadi and there are two women to take care of the children. There are chairs, tables, play materials and various educative materials for the children to play with. The room for the children to play is very colourful and attractive, neat and well ventilated. The kitchen, toilet, play area etc are very neat and clean. Beside the Anganwadi, there is a Primary School whose infrastructure is in accordance with Operation Blackboard. There are two pucca classrooms for four classes (students of one class sit on one side and the students of another class sit on the other side). There are tables and chairs for students. The classroom is clean, properly lit and ventilated.

There is a Blackboard, chalk-duster and charts, maps, diagrams and pictures on the walls to facilitate learning. The children told the researcher that the school provides books, school bags, school uniforms, pencils, rubbers and rulers to all the children. They also said that the mid-day meal quality was good and they liked the food served in school (kichri-matar, sabji rice-daal). The children also mentioned that they were also allowed extra helpings of food. The Government is successful in providing the necessary infrastructure in this adivasi hamlet. The hamlet has been covered by government programs such as Sarva Sikhsha Mission and Right to education.

Overall all the children were very happy at school and they enjoyed learning. When asked some basic questions on addition, subtraction and multiplication, the students could answer them correctly. They could also count numbers in English. They could read and write quite well in Marathi which was the medium of instruction in the school. So the basic learning skills or basic learning competencies like the 3's were successfully taught to the children in these schools. The total number of teachers was two (that is one teacher for class I and II and another for III and IV). While the teacher teaches one grade, the students of the other grade in the same classroom are given some written or reading work and vice versa. Total number of students in the primary school was 36 (Class I had 8 students [Male -4 and Female-4], Class II had 12 students [Male -7, Female -5], Class III had 13 students [Male -8, Female -5], Class VI had 3 students [All Male]). The teachers said that the children are eager to learn and they do attend regular classes during the agricultural season. But once their families migrate and then return after six months, whatever is taught in school is forgotten by most of the children. In fact, a few children relapse back to illiteracy. Thus quite a few children stagnate in the same class year after year. When enquired about what the teachers do in the six months of Katkari migration, the teachers said that they have to visit the school in the hamlet as they are paid by the government, but their job in this duration is to sit idle as they have no students attending the school. However, the teachers confessed that due to the Right to Education Act (2009) the teachers have to mark all the Katkari students as present in schools even if they are not attending it.

There seems to be a major problem of drop-outs. Girls tend to drop-out more because their education is not given much priority in their community and they are married off at an early age. Due to the constant break in studies resulting from the yearly migration of their parents, many children develop disinterest in education and do not get back to school. Thus the unsustainable livelihoods of the parents tend to directly stand in the way of their child's education. The researcher met

about 10-15 male adolescents who were chatting under a tree in the hamlet and who had dropped out of school due to sheer disinterest in studies. When asked about why they did not continue studies, the young Katkari boys said that education had no utility value for them and the job of a daily wage labour was far better as it served as modes of immediate survival for them. Moreover, there were no success stories regarding completion of education and education was not seen as an instrument of upward mobility among the Katkari students in the Ghorpapad Adiwasi Wadi.

Apart from the drop-outs, those who manage to continue school further go to study in high school in Jambhulpara and a government bus has recently started to take children from the village to the high school. There are at present three boys pursuing Graduation from the College at Jambhulpara. Ravi Pawar is the first graduate from Ghorpapad Adiwasi Wadi who has graduated in 2014 but hasn't got an opportunity for higher education or other suitable job as yet. It is encouraging to learn that Ravi teaches and helps the school children in the hamlet (free of cost) in their studies. While talking to Ravi, he seemed to be very confused regarding his future. He wanted to pursue higher education but did not get a chance to pursue masters in his favourite subject, history. The researcher told him not to lose hope and to continue to try for higher education as he was the ideal role model for the children of this village and can act as the catalyst for social change.

Discussion

The present study reveals that the Katkari are poverty ridden and marginalized because their original source of livelihood has been compromised by the government in the name of environmental preservation. What the Katkaris require are relief and development interventions to address their immediate survival concerns. The tribal mostly depend on agriculture, the land, water and forest as the main source of producing their food. Hence, the government must take initiatives to protect the tribal by ensuring sustainable livelihoods for them in their own habitat by funding and starting co-operative enterprises like dryland farming techniques, animal husbandry, cottage industry from monitored forest produce and tribal crafts. The government needs to further market these produce and products so that the Katkari can earn a living from it. This will make them self sufficient and will stop them from migrating elsewhere in search of employment.

Moreover, the lacunae existing in the government policies like uncertain recruitment in MGNREGA and the EGS by the gram panchayat along with delay in payments need to be strongly addressed. Government policies can only be successful where there is strong governance ensuring fair participation and fair

entitlement. Strengthening the government employment schemes by regular job availability for the Katkari and timely payment of their dues can stop them from distress migration. Furthermore, the right to *food* is about freedom from hunger. The Katkari are enlisted under the Antyodaya Anna Yojana (AAY) of the government's Public Distribution System (PDS) to get access to rationed food. But since they were not represented in the local gram panchayat, they firmly believed that government schemes intended for them are diverted elsewhere (Mutatkar,2017). Here again community awareness and government monitoring to ensure food security to the beneficiaries by way of a transparent and fair distribution of food should be initiated.

Once the distress migration of the Katkari can be curbed by providing them fruitful employment at or near their habitats, the problems of education can be tackled. The slow achievement of functional literacy and drop outs among Katkari children can be stalled if they can receive continuous education at these hamlets. Continuity in education will create interest in education and this will further encourage most of the Katkarti children to pursue secondary education at the Jambulpada village. Education among the Katkari is mostly limited to school education. However the exclusion of Katkaris from higher education is of grave concern. The department of tribal affairs of the government should undertake a special drive to disseminate information about the various avenues for higher education and the various government scholarships available for tribal education to the Katkari people in these hamlets. Further the government should also create awareness about the various government jobs reserved for them which they can apply for after completion of higher education. This will create an awareness among the Katkari boys and girls and it will motivate them to pursue higher education. Adult education in the hamlets should be ensured to enlighten adults on the importance and necessity of educating their children, especially the girl child, to stop early marriage of girls, to understand issues of health and hygiene, and most important of all, to secure a better livelihood.

Conclusion

To overcome the plight of the Katkari, there needs to be a proper systematic, timely intervention and execution of government policies to ensure sustainable livelihoods, education and welfare of the tribal. Policies need to be based on the ground realities and should benefit the people it is meant for. This requires good governance in designing, implementing, monitoring and evaluation of government programs. Empowering the tribal will be an important milestone on the pathway of successful democracy.

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Locus of Control and Sustainable Lifestyle of B.Ed. Students

*Madhumala Sengupta**, *Mita Banerjee*** and *Pintu Kumar Maji****

Abstract

The development of sustainable lifestyle is strongly related to philosophical factors and essential psychological factors rather than mere accumulation of knowledge. This study was to investigate the effect of locus of control on sustainable lifestyle of B.Ed students. It is a cross-sectional empirical study based on descriptive survey research design. The sample comprises 140 students, both boys & girls ranging in age from 25-30 years and studying from various B.Ed. institutions in West Bengal based on stratified random sampling. Two validated questionnaires (Rotter, 1966 and Maji, Sengupta & Banerjee, 2016) vetted by experts was used as an instrument for data collection and analyzed by employing quantitative research approach. The present investigation revealed that the types of locus of control significantly influenced the sustainable lifestyle scores and positive and significant correlation was observed between locus of control and sustainable lifestyle scores. There is a difference in the level of students' locus of control and sustainable lifestyle between fresher and deputed students. The study supported the theoretical under pinning of the importance of the psychological factors in developing a sustainable lifestyle.

Key Words: Sustainable lifestyle, Locus of control.

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Introduction

Sustainable lifestyles is a community learning and sharing together to reshape our values, behaviours and lifestyles to live more sustainably. There are various factors (demographic, biological, psychological, cognitive, emotional, behavioral attributes, skills, cultural, physical environmental, etc.) which affect such lifestyle. Researchers have tried to understand the effect of locus of control on responsible sustainable lifestyles. *Kinnear, Taylor, and Ahmed* (1974) observed that subjects who were considered to be effective in arresting pollution were more concerned about pollution than those who felt personally ineffective. Locus of control as a variable also determines to some extent whether a person would participate in environment related programmes or not. When social activism is concerned internal locus of control is observed to be more effective. The characteristics of internals in this context should be mentioned. *Elliot, et al.* (1996) enumerated the characteristics of internality, which are alertness, competence, ability to resist influence, orientation towards achievement, confidence, skillfulness etc. Diametrically opposite are the externals that are erratic, easily influenced by others, controlled by others low in confidence and less attentive. In the context of sustainable lifestyles these characteristics are surely either conducive or detrimental depending on the case. Most of the studies assumed that internality and externality are more or less invariant characteristics of individuals (*Huebner & Lipsey*, 1981). However other researchers (*Gorman*, 1969) reported that changes in external events can produce shift in locus of control. As a result, externality or internality may vary with changing circumstances and experiences. When the government or powerful others fail to take appropriate measures people may learn to feel helpless (even if they have internal locus of control) and become reluctant to engage in ecologically responsible behaviour. *Levenson* (1974a, 1974b) had suggested that externality should be broken into two categories, namely, fate or chance, and belief in powerful others. LOC as a multidimensional construct is more useful than when it is treated as unidimensional i.e. More over, in the context of sustainable lifestyles, situation specific locus of control scales are more effective in identifying environmental activists and non-activists. Thus it is apparent that this aspect of locus control has far reaching implications for sustainable lifestyle issues.

Operational Definitions

Locus of Control

According to *Rotter's* theory (1966), Locus of control refers to the extent to which individuals believe that they can control events that affect them. Expectancies are the result of reinforcements, which act to either increase or decrease the expectancy that a particular behavior will lead to further reinforcements. Locus of control is a personality construct referring to an individual's perception of the locus of control of events as determined internally by his/her own behavior versus fate, luck or external circumstances (*Grantz*, 1999). LOC as a concept has been found to explain the prediction of behaviour. Locus of control can again be of two types—

- ***Internal locus of control***— Individual believes that his/her behaviour is guided by his/her personal decisions and efforts.
- ***External locus of control***— Individual believes that his/her behaviour is guided by fate, luck, or other external circumstances

Internal People are those who determine their own life outcomes by being active and effective agents of change while external people believe that their life outcomes are the results of luck, chance, fate, or powerful others, beyond their control.

Sustainable lifestyle

The concept of sustainable lifestyle is a debatable issue and difficult to define. Westminster Centre for Sustainable Development that defines sustainable lifestyles as: “patterns of action and consumption used by people to affiliate and differentiate themselves from others, which meet basic needs, provide a better quality of life, minimize the use of natural resources and emissions of waste and pollutants over the lifecycle, and do not jeopardize the needs of future generations” (CSD, 2004). Sustainable Lifestyles is a community learning and sharing together to reshape our values, behaviours and lifestyles to live more sustainably. It is a lifestyle carried out with a view to help others or save environment at your own personal cost, including altering methods of transportation, energy consumption and diet. The sustainable lifestyle which is much more than adopting pro environmental behaviour is based on five core principles namely—

- Respecting life and natural processes
- Living within limits
- Valuing local
- Accounting for full cost (cost to environment and society reflected in prices)
- Sharing power (responsibility)

The DEFRA report has succinctly highlighted the concept of lifestyle and sustainability in the following words—

- Lifestyles relate to our ways of “doing”, “having”, “using” and “displaying”.
- Sustainable lifestyles aim to ensure that everything we do, have, use and display meets our needs and improves our quality of life while minimizing the consumption of natural resources, emissions, waste and pollution and ensures that resources are safeguarded for future generations.
- Sustainability has three pillars: environmental, social and economic.
- Ideally sustainable solutions would not undermine choice or personal identity and rather open up new choices for many.

The SPREAD project has chosen four lifestyle areas for deeper investigation—

- consuming (food, household and leisure consumer products)
- living (the built environment and homes)
- moving (individual mobility and transport)
- health and society (individual and society-wide health and equity)

The complex issue of sustainable lifestyle is not clearly defined. The sustainable lifestyle as construct refers to environmental actions to check adverse impact on the environment. *Barr, Gilg and Shaw* (2006) used factor analysis and found sustainable lifestyle activities comprises of mainly three factors—purchase decisions focused around shopping habits, habitual behaviour focused around the house and recycling behaviour focused around waste management.

Objectives

The objectives of the present study are—

- To find out the effect of stream & gender on locus of control and sustainable lifestyles.

- To compare sustainable lifestyles of students having different types of locus of control.
- To explore the relationship between locus of control and sustainable lifestyles.

Hypotheses of the Study

The investigator made the following null hypotheses–

H₀ 1- There is no significant difference between boy and girl students in respect of locus of control scores.

H₀ 2- There is no significant difference between deputed and fresher students in respect of locus of control scores.

H₀ 3- There is no significant interaction effect of locus of control scores between type of student and gender.

H₀ 4- There is no significant difference between boy and girl students in respect of sustainable lifestyles scores.

H₀ 5- There is no significant difference deputed and fresher students in respect of sustainable lifestyles scores.

H₀ 6- There is no significant interaction effect of sustainable lifestyles scores between type of student and gender.

H₀ 7- There is no significant difference between students with internal and external locus of control in respect of sustainable lifestyles scores.

H 8- There will be positive correlation between scores of locus of control and sustainable lifestyles.

Methodology

The sample comprises 140 students, both boys & girls ranging in age from 25-30 years and studying from various B.Ed. institutions in Kolkata based on stratified random sampling. Two validated questionnaires (Rotter, 1966 and Maji, Sengupta & Banerjee, 2016) vetted by experts and researchers in measurement and research was used as an instrument for data collection and analyzed by employing a quantitative research approach.

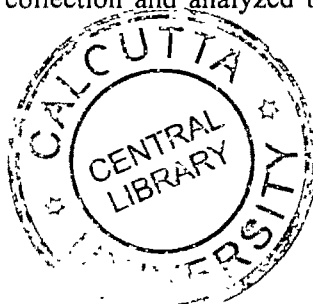


Table 1: Summary of the Variables

Name of the Variable	Nature of the variable	Type	Subscales/ Categories	Mode of Assessment
1. Locus of Control	Continuous/ Sampling Category	Independent/ Dependent	Two Sub-Groups 1. Internal 2. External	Questionnaire
2. Sustainable lifestyles	Continuous	Dependent	Single Score	Questionnaire
3. Type of students	Sampling Category	Independent	Deputed and Fresher Categories	Information from the Respondents
4. Gender	Sampling Category	Independent	Boy and Girl Categories	Information from the Respondents

Instruments***(i) Locus of Control Scale (LOCS)***

Julian Rotter (1966) Bengali adaptation of scale was standardised by the investigators. The original scale had 29 items (scoring range 0 to 23). Each item has two alternatives responses, one related to external locus of control and the other is about internal control. The participant has to choose one of the alternatives. (One example of an item is “most students don’t realize the extent to which their grades are influenced by accidental happenings”). The high scores indicate external locus of control and low scores depict internal locus of control. Although it is a standardized test, the reliability of the test was determined as it was locally adapted. The tool was standardized on a separate sample group (N=40). The reliability of the test was determined by *Cronbach alpha* (0.69). The item validity was tested by *Tetrachoric correlations* and the values varied from 0.3-0.7.

(ii) Maji, Sengupta and Banerjee Sustainable Lifestyle scale (MSBSLS)

The researchers constructed and standardized the scale. The items were selected from different sustainable lifestyles scales available. Items related to Sustainable choices in everyday life are- use social norms, green by default, attract attention, smart incentives, create new habits, engage values and connect to nature, such as

“I always make sure that the water tap is turned off when not in use”. The choices for each item are ‘always’, ‘often’, ‘sometimes’, ‘rarely’ and ‘never’. The Cronbach alpha was determined and the value was 0.62. The inter-item correlation was significant for all the 24 items. The item validity was tested by *Tetrachoric correlations* and the values varied from 0.4-0.7. No negative correlation was found.

Analysis, Results and Discussion

For the purpose of quantitative analysis of data, a few selected statistical methods were used. The responses were typed into an Excel program. Data were analysed by using SPSS v.17. For measures of arithmetic Mean, figures, etc. were used widely. For testing the significant differences and effect on different sample groups, tests such as t-test and ANOVA were used. Bivariate correlations were computed to investigate coefficient of correlation among different variables.

Table No. 2: Descriptive Statistics Concerning Distribution of Locus of Control Scores in Respect of Two Categories of Sample Groups

Type of Students	Gender	N	Mean	S.D.
Fresher	Boys	56	10.41	1.895
	Girls	52	10.42	2.003
	Total	108	10.42	1.939
Deputed	Boys	20	5.65	1.089
	Girls	12	5.67	1.775
	Total	32	5.66	1.359
Total	Boys	76	9.16	2.718
	Girls	64	9.53	2.702
	Total	140	9.33	2.707

Table-2 shows the descriptive statistics of locus of control among students. Table indicates that locus of control scores of the girl students and fresher students are higher than those of boy students and deputed students.

**Table No. 3: Summary of the Factorial Analysis of Variance (ANOVA)
for the Scores of Locus of Control Scores**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Main Influence TOS (A)	531.481	1	531.481	157.317	0.000
Gender (B)	0.005	1	0.005	0.001	0.970
Interaction Influence TOS and Gender (A×B)	0.000	1	0.000	0.000	0.995
Error	459.463	136	3.378		
Total	13202.000	140			
Corrected Total	1018.886	139			

Main Influences

The main influences of the category variables namely type of students (A) and gender (B) on locus of control scores are reported below—

First Main Influence (A)

From the Table-3 it might be concluded that there was a significant effect of type of students on locus of control (the significant value less than 0.01). Thus there was a significant main effect of type of students.

Second Main Influence (B)

The second main effect of gender was not significant.

This Result indicates that H_{01} is rejected and H_{02} is accepted

Interactional Influences

Table-3 indicated a not-significant interaction effect between type of students and gender.

This Result indicates that H_{03} is accepted

Table No. 4: Descriptive Statistics Concerning Distribution of Sustainable Lifestyle Scores in Respect of Two Categories of Sample Groups

Type of Students	Gender	N	Mean	S.D.
Fresher	Boys	56	94.66	14.991
	Girls	52	96.87	12.769
	Total	108	95.72	13.945
Deputed	Boys	20	89.85	10.903
	Girls	12	84.42	8.426
	Total	32	87.81	10.256
Total	Boys	76	93.39	14.123
	Girls	64	94.53	12.976
	Total	140	93.91	13.574

Table-4 shows the descriptive statistics of locus of control among students. Table indicate that locus of control score of the girl students and fresher students are higher than those of boy students and deputed students.

Table No. 5: Summary of the Factorial Analysis of Variance (ANOVA) for the Scores of Sustainable Lifestyle Scores

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Main Influence TOS (A)	1747.951	1	1747.951	10.024	0.002
Gender (B)	61.168	1	61.168	0.351	0.555
Interaction Influence TOS and Gender (A × B)	342.323	1	342.323	1.963	0.163
Error	23716.078	136	174.383		
Total	1260398.000	140			
Corrected Total	25612.971	139			

Main Influences

The main influences of the category variables namely type of students (A) and gender (B) on sustainable lifestyle scores are reported below–

First Main Influence (A)

From the Table-5 it might be concluded that there was a significant effect of type of students on sustainable lifestyle (the significant value less than 0.01). Thus there was a significant main effect of type of students.

Second Main Influence (B)

The second main effect of gender was not significant.

This Result indicates that H_{04} is rejected and H_{05} is accepted

Interactional Influences

Table-5 indicated a not-significant interaction effect between type of students and gender.

This Result indicates that H_{06} is accepted

Table No. 6: Descriptive Statistics Concerning Distribution of Sustainable Lifestyle Scores Regarding Types of Locus of Control

Type of locus of control	N	Mean	Std. Deviation
Internal Group	41	107.71	13.286
External Group	99	88.20	8.761

Table-6 shows the descriptive statistics of sustainable lifestyle among students. Table indicate that sustainable lifestyle score of the students with internal locus of control is higher than those of students with external locus of control students.

Table No. 7: t-Test for the Sustainable Lifestyle Scores in Respect of Two Categories of Sample Groups Regarding Types of Locus of Control

t-test for Equality of Means				
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
10.217	138	0.000	19.505	1.909

From the Table-7, it is evident that there is a significant difference in the two groups (students with internal and external locus of control) in sustainable lifestyle.

Table No. 8: Correlation between Scores of Locus of Control and Sustainable Lifestyle

		Locus of control	Sustainable Lifestyle
Locus of control	Pearson Correlation	1	-0.341**
	Sig. (2-tailed)		0.000
	N	140	140
Sustainable Lifestyle	Pearson Correlation	-0.341**	1
	Sig. (2-tailed)	0.000	
	N	140	140
*. Correlation is significant at the 0.05 level (2-tailed).			

From the Table-8, it was found that, locus of control score was significantly and negatively associated with sustainable lifestyle score. As the scores of locus of control are reversed i.e. the internals scoring less than external, the correlation coefficient is found to be negative. It implies that internal participants are likely to be more environmentally active.

This Result indicates that H 8 is accepted

Conclusion and Significance

The study supports the earlier research findings which found the motivational impact of internal locus of control on development of environmental knowledge (Gambro and Switzky, 1996) and on environmental action (Levenson, 1974). It further corroborates the theoretical basis of self determine theory of motivation (Deci and Ryan, 1985) in which case an individual with internal control is more inclined to take relevant action, in this case sustainable lifestyle. Internal locus of control which is akin to personal control had been studied by Geller et al, (1996), albeit in different situations like in work places. Personal control is an important self affirmational psychological construct which positively mediates environmental behaviour and leads to actively caring for the environment based on altruism (Bierhoff, et al., 1991). However locus of control cannot be the only predictor of sustainable lifestyle, like all other human behaviour. The implication of the study lies in the fact that the role of a psychological factor like LOC has been analyzed showing that internal control positively affects the sustainable lifestyles. It also highlights the fact that notwithstanding environmental knowledge, the psychological factors have to be implicated in developing sustainable lifestyles.

Although students possess a positive locus of control yet their environmental commitment is not very strong. The teachers are the best persons to implement the policies related to environment education. In the class they should continuously interact with the students about sustainable lifestyle related issues so that the students develop multiple perspectives of environment and ability for critical thinking. Environmental issues can be raised by the teacher of any subject, be it language, social studies and, of course, social science. More than books, the teacher, during the teaching, has the ability to develop environment related behavior by being active and enthusiastic in the class. The idea is to give a holistic attitude towards sustainable lifestyle by involving students in various types of activities.

Thus there is an imperative need that the teachers should be internally motivated to increase their locus of control on their students, thereby encouraging sustainable lifestyle. The study is significant for the society as its interaction with students in the context of sustainability is likely to develop internal lifestyle on the students.

Limitations of the study

The limitation of the study is the sample size as the results from larger sample could have been more trustworthy. The qualitative study was also required for deeper understanding of the issue. The studies on other psychological factors like ecological values (Sengupta, Banerjee and Maji, 2010), environmental attitude and action etc. need to be understood in conjunction to develop a broader theoretical basis in this regard.

Suggestions for Further Research

The investigator would like to suggest the some following topics for further researchers–

- This study was concerned with B. Ed. only. A similar investigation may be conducted on different levels of education viz., degree colleges and university level.
- Studies may be done to find out the locus of control, sustainable lifestyle in relation to their academic achievement, socioeconomic condition, values, etc.

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Margins and Marginalization in History: Examples, Reasons, and Significance from the American Experience*

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Abstract

Why do we have so much information about some people and so little about others? We know that gender, race, ethnicity, and class all play a role in who is and who is not recognized in history; however, these are not the only sources of obscurity. Rather, members of elite society, leaders of tribes, and individuals who are prominent in their own times just as often are lost in collective memory. This article illustrates this phenomenon of marginalization with examples from American history; these include pairs of better known and lesser known Americans of similar gender, race, and/or class; some lesser known supporters of the American Revolution, and two pioneer women entrepreneurs of the American West who challenged the status quo but did so within certain parameters of conformity.

Introduction

Why do we have so much information about some people and so little about others? Some reasons that may come readily to mind are gender, race, and class. Women's achievements are typically less well-known than those of men, as well as the achievements of races and classes that historically have been subjugated, such as African-Americans and Native Americans in the United States, and the poor throughout the world. These factors, however, do not adequately explain why the achievements of some are consistently well-known, while those of their contemporaries of the same gender, race and class are all but lost in history.

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The aim is to present examples of marginalization of a representation of Americans whose accomplishments were instrumental in shaping the country's history, to suggest reasons for their marginalization, and to use those reasons as a point of departure for educators to devote more attention to the "margins" of the subjects they teach.

The word "margin" has multiple meanings and suggests multiple images. The introductory paragraph above presents the issue of marginalization, namely the displacement of people, from the major evolution and dialogues of history. The term margin, however, also refers to something more basic—space on a page. One of the greatest paradoxes is the marginalization of margins themselves. After all, we read from, across, and down the center of the page. It is when we digress from the main topic that we venture into margins, at least some of the time. Once our focus turns to margins, we use them in various ways. We may remind ourselves of an important task or something we need to read with a note in the margins, or we may comment on something that the "center" has prompted us to contemplate, but which in fact is totally unrelated to the topic at the center of the page. Margins are also places where we comment on the main text. We highlight passages that we find particularly significant, and we express our critiques of what is written . . . in the margins.

Thus margins inform and enlighten; likewise, people and places that are marginalized also inform and enlighten us about history in ways that we may overlook by concentrating only on the better known and the more salient. Moreover, by identifying possible reasons for marginalization, we may be able to prevent in our own lives as scholars and teachers the kind of marginalization that denies rightful recognition to individuals, while at the same time sustaining the more holistic vision that looking and working, indeed *being* in the margins affords.

The following paragraphs present some examples of such margins and marginalization of individuals in United States history. As the examples will illustrate, those marginalized during some time periods are reinstated to a place of prominence during others. This transition, however, is often marked by distortion, as factual accounts of the person's life have either been lost or never recorded. As is the case with some of the following individuals, ambiguity lends itself well to the creation of the heroic, especially during times when a hero is needed or desired to elevate the oppressed or to unite citizens with a sense of national identity. Such inclusion of the mythical brings to a forgotten historical figure the recognition that s/he deserves; however, it can also impart an image quite unlike the actual human being. As researchers, scholars, and teachers, we have a responsibility constantly

to probe the past, availing ourselves judiciously of new research technologies and newly granted access to archives and other places that may lend insight regarding those greatly accomplished but little known, as well as those well-known for their accomplishments but little understood.

Discrepancy of the well-known and the little-known among individuals of the same gender, race, and socioeconomic status, due to lack of documentation, place in history, and image or reputation among contemporaries:

The following pairs of individuals exemplify the discrepancy of well-known versus little-known between individuals of the same gender, race, and socioeconomic status. The first of the two has become relatively to very well-known, while the latter became almost unknown in history until discovered and researched decades or centuries later. Because the emphasis of this article is on the lesser-known of the two in each case, that person is presented in more detail, although references for both are presented herein in a commensurate manner. Also, because in some cases, such as Sheheke, Ebenezer Bassett, and Belva Lockwood, only one authoritative biography exists, what is presented is almost entirely from that respective source.

Sacagawea, Hidatsa and Shoshone interpreter, and Sheheke, Mandan leader and diplomat - both part of the Lewis and Clark Expedition:

The Lewis and Clark expedition, led by explorers Meriwether Lewis and William Clark and also known as the Corps of Discovery Expedition, was the first Anglo-American expedition to cross the western portion of what is now the United States and reach the Pacific coast. Its place as a cornerstone of American history has also subjected it to reinterpretations over time that embellish or otherwise distort its members, quite possibly Sacagawea more than any other. These reinterpretations had a particular resurgence in preparation for and during the bicentennial of the expedition in 2004, including the issuance in 2000 of the Sacagawea gold U.S.dollar coin (Anderson: 1999; McBeth 2003; Clark and Edmonds 1983; Fresonke and Spence 2004; Woodeger and Toropov 2004).

Sacagawea (also sometimes spelled Sacajawea, though the former is more widely recognized as correct) (1788-1812) was a Lemhi Shoshone woman who served as an interpreter between the Shoshone and the Lewis and Clark expedition of 1804-1806, traveling from what is today North Dakota to the Pacific Ocean. After being captured as a girl by members of the Hidatsa tribe, Canadian Quebecois trapper Toussaint Charbonneau had taken her as his wife. The

expedition agreed to hire Charbonneau as a guide, due to the fact that his wife Sacagawea spoke Shoshone. Also, having a woman, along with her newborn son, as members of the expedition offered the guarantee to the Shoshone and others that the expedition was not a war party. While her exact role in the expedition has been debated, a strong consensus has persisted regarding her vital contribution to the success of the expedition, most notably by William Clark himself (Anderson 1999; McBeth 2003).

In addition to the reinterpretation and even re-invention of Sacagawea in Anglo-American history, Native American oral traditions about Sacagawea vary as well, with narratives by at least four tribes: the Lemhi Shoshone, the Wind River Shoshone, the Comanche, and the Hidatsa, a point that will be re-visited in this article's conclusion (McBeth 2003).

Sheheke (1766-1812) was a Mandan chief and diplomat who was instrumental in enabling the Lewis and Clark expedition to make their way across what is now the US state of North Dakota. At then President Thomas Jefferson's invitation, Sheheke traveled to Washington, DC to represent the Mandan tribe in the spirit of goodwill.

The Mandan were skilled and cosmopolitan hunters, traders, and diplomats. Sheheke was the civil counterpart to the war chief of the primary village. A civil chief was chosen for his qualities of compassion, generosity, and safeguarding of village and tribal traditions. Upon meeting the Lewis and Clark expedition party, Sheheke expressed pleasure that they planned to spend that winter of 1804 close to his village. It was during that meeting that Sheheke made his solemn promise to Lewis and Clark, namely, "If we eat, you shall eat, if we starve, you must starve also" (Potter 2003: 91).

Sheheke's hospitality comprised a skillful combination of generosity and a desire to build an alliance of goodwill with these Americans who, unlike their predecessors, showed no interest in trading for beaver pelts (Potter 2003: 91-92). To this end, Potter recounts a brief but significant hunting expedition between the Mandan and expedition party:

"This little [buffalo hunting] excursion [of 7 December 1804] was a very important moment in history. Hunting together is a bonding experience. Enemies don't hunt together. Sheheke reached out a real hand of friendship, not just a rhetorical one, when he took Captain Lewis out hunting. Their relationship was cemented and relations between the United States and the Mandan Nation warmed. From a strictly material view, the act was just as important. It meant that the men of the Corps would eat well" (Potter 2003: 93).

In early January 1805, Clark and Sheheke together sketched a map of the westward territory to which the Lewis and Clark expedition was entering. After that encounter, Sheheke's name is absent from Clark's journals for a month (Potter 2003: 97-98). While Sheheke continued to interact sporadically with Lewis and Clark, the latter's journal entries became more brief, with the next reference to Sheheke not appearing until 19 March 1805. An incident similar to the hunting expedition described above had occurred in February, when a party of Sioux had attacked members of the expedition and stolen two horses, and Captain Lewis was determined to pursue them, even in the dangerously bitter winter conditions. Although Sheheke considered Lewis's decision utterly foolhardy, he accompanied him as an act of allegiance and goodwill (Potter 2003: 98). By the time of Lewis and Clark's departure, Sheheke's contribution to the expedition had been invaluable. Biographer Tracy Potter summarizes the relationship he cultivated as follows:

"Sheheke had invested much in the Americans, though nothing he could not afford to be without. He had held out a hand of friendship, and that hand was shaken in friendship. His diplomatic goals were clear and simple. At first, he wanted the Corps [of Lewis and Clark] to locate either within his village or nearby, for mutual defense and ease of trade. That goal was accomplished when Fort Mandan was sited across the river from Mitutanka. His second goal was to encourage a short-term profitable commerce with the Americans. This was also quickly accomplished, as his people traded relatively abundant and ultimately renewable food stores for the unique and durable goods of the United States. Thirdly, he wished to make long-term friendship with the Americans. Through the winter, generally at two week intervals, he visited them. He invited them to hunt in the Mandan style. He brought them food. And he brought the Captains information, a lot of information. He instructed them in the political currents of the Northern Plains. He helped Clark draw a map of the region the Americans were intending to explore. Sheheke told their stories about history, religion, and social mores. He was, their own preference for [second village first chief] Black Cat's 'perspicacity' notwithstanding, the single best friend the Americans made at the Mandan and Hidatsa villages. When Clark wanted to mount a military expedition, he went to Sheheke's lodge to talk it over. When Lewis did set off on a foolish military mission, Sheheke was the first Indian to join in. Sheheke was not the most feared warrior of the five villages. He was not particularly eager for battle, and he certainly knew that Lewis was being an idiot to march blindly, literally as snow blindness

affected the pursuit, across the snow with a force of twenty-four men in search of a party of Sioux more than four times that size. But Sheheke joined in. He demonstrated to Lewis and Clark that he was willing to fight at their side. The alliance between the United States and the Mandan was made, at that moment, real. It was not just words. Sheheke, the civil chief, put his life on the line, a volunteer enlistee in an American campaign (Potter 2003: 104).

Yet although Sheheke, along with his wife Yellow Corn and their son White Painted House comprised the Native American delegation that President Thomas Jefferson received at the White House, he was not Lewis and Clark's first choice, nor do we find references to Sheheke in Clark's account of the expedition after the spring of 1805. In fact, Potter has interpreted a marked apprehension on the part of Sheheke upon the Americans' farewell:

"As he watched them paddle upriver, Sheheke the diplomat must have wondered if any of his efforts had been worthwhile. The Americans' visit might have been like [earlier Welsh explorer John] Evans', just a fleeting mirage. As a diplomat, the results of his actions were uncertain in April of 1805" (Potter 2003: 104-105).

The aforementioned initial dismissal of Sheheke as the first choice of delegate to meet President Thomas Jefferson signals another mysterious element. Why this apparent ambivalence toward Sheheke in 1806? Lewis and Clark's first choice was Black Cat, whom they perceived to be the more powerful and efficacious leader; however, Black Cat had declined, expressing fear that his ability to return home would be jeopardized by adversarial tribes. Other invitees also declined, leading Lewis and Clark to ask Sheheke, who accepted, despite the dangers. Sheheke, Yellow Corn, and White Painted House journeyed to Washington, DC and on 31 December 1806 met US President Thomas Jefferson, who hosted them graciously and ceremoniously. Their return home, however, was severely delayed by emerging hostilities from the Arikara tribes, leaving the family detained in St. Louis, Missouri, where both Sheheke's wife and his son died. In addition, President Jefferson severely chided Meriwether Lewis, who was in charge of Sheheke's and his family's return, blaming Lewis for the delay. The final blow to Sheheke occurred when he finally did arrive at his home village in August 1809; instead of welcoming him, the villagers disparaged him, both for being away for such a duration, and also for recounting what they believed to be fanciful and totally false stories of his eastward pilgrimage. While there is some uncertainty regarding when Sheheke died, most of the few sources available state that he

was killed in a Sioux raid in 1832 (Fresonke and Spence 2004; Potter 2003; Woodeger and Toropov 2004).

United States First Ladies Dolley Madison and Elizabeth Kortright Monroe

Dolley Madison (1768 - 1849) was the wife of James Madison, and First Lady during his administration as President of the United States from 1809 to 1817. During her tenure as First Lady, she successfully synthesized the norms of the new republicanism embraced by the fledgling post-Revolutionary states with the traditions and tastes of aristocracy, thus making the White House and Washington, DC a welcoming venue for European dignitaries as well as American statesmen and stateswomen (Allgor 2012, 2006, 2000).

For the new American republic, Dolley Madison's articulation of style catalyzed a synthesis between republican ideals of rejection of aristocracy in favor of equality (however unrealized for more than another century) and the appreciation of the finery afforded by aristocracy, a finery that was often assumed to be coveted more by women than men. Dolley Madison optimized through the White House and the new nation's capital city an image of America that was pragmatic, republican, and inclusive (though that was to be a much longer journey), and at the same time elegant and stylish, representing a government that was close to ordinary American lives but without sacrificing the aplomb of high society. In this way Dolley Madison's approach was emblematic of the inseparable nature of style and substance that characterized the late eighteenth and early nineteenth centuries. As historian and biographer Catherine Allgor explains, "Style not only dictates what comprises substance; it is substance" (Allgor 2000: 53).

Elizabeth Kortright Monroe (1768 – 1830) was the wife of fifth US President James Monroe and First Lady from 1817 to 1825. Elizabeth Monroe was born into a Loyalist family. Although members of elite American colonial society, the fact that they were Loyalists during a time of rapidly escalating colonial fervor could have resulted in their marginalization from early colonial America's limelight. Furthermore, it is widely believed that following Elizabeth Monroe's death, her husband James Monroe destroyed their correspondence; in any case there is no trace of such records. Furthermore, the fact that the more reserved Elizabeth Monroe served as successor to the vivacious Dolley Madison prompted some Americans to consider the former as aloof; however, prior to his presidency, when James Monroe served under President Jefferson as Minister to France, the French and other Europeans found Elizabeth Monroe's more nuanced style very appealing (Allgor 2000).

In 1794 James Monroe was named U.S. Minister to France, and the couple relocated to Paris. During the last days of the French Revolution, Elizabeth Monroe visited Adrienne de Noailles de Lafayette, the Marquis de Lafayette's wife who had been imprisoned. French aristocrat and military leader, the Marquis de Lafayette had been France's most celebrated supporter of the American independence effort, and Elizabeth Monroe's visit to his wife was a clear if unofficial statement of support for her release, and quite possibly saved her from the guillotine. The French government released Adrienne de Lafayette on January 22, 1795 (Hendricks 2015: 37; McCombs 1943).

Despite Elizabeth Monroe's eight-year tenure as First Lady, almost no primary source material on her exists. As previously noted herein, we do know from secondary sources, including written observations, that her more nuanced, European style of diplomacy and protocol contrasted sharply with that of her predecessor, Dolley Madison, and while this approach endeared her to the French and other Europeans, it was at times interpreted as aloof and snobbish within the newly formed American republic. Allgor describes the transition from the presidency of James Madison to that of James Monroe as one in which the easy access and spontaneity that had characterized the Madison presidency was replaced by a reserve that Washington, DC's residents and visitors interpreted as aloof and inhospitable, a perception made worse by the Monroes' affinity for European, and especially French, decor (Allgor 2000: 147-148). Thus the juxtaposition of Dolley Madison and Elizabeth Monroe offers several insights, including the numerous ways in which people and places can become marginalized.

Frederick Douglass, abolitionist and Washington, DC magistrate, and Ebenezer Bassett, first African-American Ambassador.

Frederick Douglass (1818-1895) was a prominent abolitionist and advocate for woman's suffrage, as well as serving as *charge d'affaires* for the United States to the Dominican Republic and as US Marshall for the District of Columbia following the American Civil War, making him the first African-American to hold an elevated position in government. He published several editions of his autobiography and other writings on abolition, women's rights, Irish home rule, temperance, land reform, public education, and other subjects.

Born into slavery in the US state of Maryland, Douglass managed to escape after two failed attempts. He migrated to Massachusetts, where he became a major orator for abolition, delivering speeches throughout the country. In the mid-nineteenth century, following publication of the first edition of his autobiography,

Douglass migrated to England and Ireland, where he witnessed the potato famine in the latter, prompting him to advocate on behalf of the Irish. British supporters assisted him in purchasing his freedom, and upon his return to the United States as a free man, Douglass produced several abolitionist newspapers, and in 1848 was the only African-American to attend the first women's rights convention at Seneca Falls, New York, stating that he could not accept the right to vote as an African-American if women were denied the same right.

After the American Civil War, Douglass served as president of the Freedman's Savings Bank and as charge d'affaires for the Dominican Republic and as Minister-Resident and Consul General to the Republic of Haiti between 1889 and 1891. US presidential candidate Victoria Woodhull chose Douglass as her running mate on the 1872 Equal Rights Party ticket, though Douglass was not informed nor did he agree to the nomination, nor did he campaign for the office. Nevertheless, Woodhull's selection marked the first time that an African-American was listed on a presidential ballot (Chaffen 2014; Douglass 1892, 1881, 1855, 1845; Gates 1994; McFeely 1991; Oakes 2007).

Ebenezer Bassett (1833-1908) was the United States' first African-American diplomat, appointed in 1869 as Minister to Haiti. Born of free black parents in Connecticut, Bassett was the first African-American student to attend college at what was then named the Connecticut Normal School, now Central Connecticut State University. Following graduation, Bassett taught school in New Haven, Connecticut and befriended abolitionist Frederick Douglass. Prior to his diplomatic career, he was a prominent abolitionist and educator.

After relocating to Philadelphia, Pennsylvania to teach at what became Cheney University of Pennsylvania, Bassett became a leading abolitionist, including organizing recruitment for the Union Army. When U.S. President Ulysses S. Grant appointed Bassett to become Minister to Haiti, he believed Bassett could improve bilateral relations between the U.S. and Haiti, not only because of his expertise, but his sociological representation as an African-American in a country that was not officially recognized by the United States until 1862.

Perhaps one of Bassett's most notable—as well as controversial—achievements was providing refuge to General Pierre Theoma Boisrond-Canal, one of several young leaders who ousted President Sylvain Salnave from power in 1869. By the time Michel Domingue had become Haiti's new president, Boisrond-Canal had returned to his home outside the capital of Port-au-Prince. Ever suspicious of potential rivals, Domingue pursued Boisrond-Canal, thus driving the latter to seek shelter at Bassett's home. Bassett agreed to protect him under

the terms of his (Bassett's) diplomatic immunity. Bassett issued a lengthy dispatch to then US Secretary of State Hamilton Fish, asking for assistance in the form of a naval warship and expressing his conviction that the crisis would be resolved.. Fish in turn chastised Bassett for taking in refugees, drawing support from Stephen Preston, then Haitian Ambassador to Washington, who had complained about the refugees (Teal 2008).

As a result of the standoff, Bassett's home remained surrounded by more than a thousand soldiers throughout the summer of 1869. Bassett first raised the idea of sending a US warship to Haiti in his May 8 dispatch, when he first reported the event, asserting that a display of force would strengthen moral suasion. Fish, again supported by Preston, refused. Meanwhile, throughout the duration of the crisis, the Haitian people viewed Bassett favorably. By the end of the summer, the US Navy Department was instructed to send a man of war to Port au Prince. As the ship was about to embark, Preston informed Fish that Domingue was ready to acquiesce and allow Bassett to escort Boisrond-Canal safely out if the warship would turn back and remain outside Haitian waters. Fish agreed to these terms and on October 5, 1875, Boisrond-Canal boarded an American ship to Jamaica, where he ultimately was able to settle safely. Bassett spent another decade as Consul General for Haiti while living in New York City (Teal 2008).

Among the questions that we might raise are, to what extent was Bassett's effectiveness as a diplomat linked to his sociological representation as an African-American in a nation of former black slaves? To what extent was his legitimacy as a diplomat underscored by his willingness to resist the Domingue regime, even in the face of criticism from the U.S. State Department, and to what extent was his stance related to his own prior work as an abolitionist in the United States?

Although the two were contemporaries, and each was instrumental in struggling not only for the rights of African-Americans, but also in representing the United States during a critical time of growth, consolidation, and identity, Frederick Douglass came to occupy a far more salient position in US history. While the reasons for this are not altogether clear, contributing factors may have included Douglass's publication of multiple editions of his autobiography, as well as his rise to prominence as an orator. Moreover, several of Bassett's children died prematurely, and he had no grandchildren to maintain records of his achievements. Still, as Teal explains, after essentially "stumbling" onto Bassett's life and legacy while serving as a diplomat in the Dominican Republic, he searched further and ultimately found numerous records in the US National Archives and Library of Congress, thus enabling him to write the first full-length biography of one of the United States' most influential diplomats (US State Department 2016).

United States Presidential Candidates Victoria Woodhull and Belva Lockwood

Victoria Woodhull (1838-1927) was an American leader and advocate for woman's suffrage who in 1872 ran for the US presidency on the Equal Rights Party ticket. Her name, however, did not appear on the ballot. She also was the first woman who, together with her sister, operated a brokerage firm on Wall Street.

Soon after opening her brokerage firm, Woodhull announced her candidacy for the US presidency, running on the Equal Rights Party and campaigning on a platform that included women's suffrage, regulating monopolies, nationalizing railroads, establishing an eight-hour workday, direct taxation, abolition of the death penalty, and welfare services for the poor. A newspaper article that she published a few days before the 1872 presidential election, in which she was a candidate, led to her imprisonment, and she spent Election Day in jail.

In addition to what were considered unorthodox political perspectives, she also advocated sexual independence for women and extramarital relations, as well as promoting eugenics, all of which were considered radical at the time. These aspects of Woodhull's life ultimately alienated her from the woman's suffrage movement, and she was recorded in history with more notoriety than recognition of her contributions (Carpenter 2010; Fitzpatrick 2016).

Belva Lockwood (1830-1917) ran for the US presidency in 1884 and in 1888 on the Equal Rights Party ticket, and unlike Woodhull, was the first woman to appear as a candidate on official ballots. In 1884 she received approximately 4,194 votes. She also was the first woman in the United States allowed to practice at the bar of the Supreme Court, as of 1879. Following her candidacy for the presidency, she worked on behalf of the Universal Peace Union.

Political scientist Jill Norgren, who discovered Lockwood as the subject of a children's book while with her young daughter in a library, writes in the introduction to her biography of Belva Lockwood:

"I realized immediately that I knew nothing about the woman or her accomplishments. As it turned out, I was not alone; virtually none of my university colleagues knew her name. A bit of scholarly snooping confirmed that historians had indeed lost the thread of Lockwood's long life [of 86 years], which had been devoted to nurturing democracy and individual rights" (Norgren 2007: 15).

As is the case with Sheheke and Sacagawea, and with Ebenezer Bassett and Frederick Douglass, we may wonder, how did Lockwood, in contrast to Woodhull, remain in near obscurity for so long? Norgren notes several reasons, among them that at the time of her death in 1917, few libraries retained the

documents of women activists. Moreover, Lockwood outlived her daughters and was twice widowed, and her grandson removed much written material by and about her, deeming it unimportant for posterity. Nor are there any surviving documents from her childhood that could lend insight into early events that may have influenced her life's direction. As for Lockwood herself, her writing, autobiographical and otherwise, is confined to law, politics, and social change; she was not one to write about family or other personal matters, or her emotions (Norgren 2007: 15-17). As Norgren summarizes, "She was a person who lived in the present and for political purpose (Norgren 2007: 17).

Fortunately, journalists wrote extensively about her, both because of her ideas and because she was quite willingly a very public figure. Her daughter Lura McNall published a column titled "Our Washington Letter" which included reports on "Mrs. Lockwood, Washington's Lady Lawyer", and the National Archives in Washington, DC kept records of the courts in which her cases were tried (Norgren 2007: 15-17). Thus, like Christopher Teal with respect to Ebenezer Bassett, Jill Norgren happened upon her first references to Belva Lockwood quite fortuitously, but discovered ample, if not complete documentation to write the biography of someone who had made remarkable contributions to her country but without proper recognition over time.

Marginalization of Individuals Associated with Incomplete Conformity and Non-Conformity: Clara Brown and Kittie Wilkins:

Controversy prompts attention. Individuals who challenge the status quo often are recognized even if not always or immediately accepted. Some individuals, however, who embark on unconventional paths but who do not totally reject tradition and conformity may become obscured over time, simply because they do not appear to represent a larger universe. Each in his/her own way is a trailblazer; yet by concurrently challenging and retaining elements of the status quo, they often are not as celebrated in history as those who challenge existing norms more comprehensively or radically. The following two pioneer women of the American West exemplify this scenario

Clara Brown (1800-1885) was a former slave who migrated westward and became an entrepreneur and philanthropist, helping freed African-Americans after the American Civil War to settle in the American West. Born a slave in Virginia or Tennessee in 1800, she married at the age of 18 a slave named Richard. The couple had four children. When Brown was 35, her master, Ambrose Smith, died, and the family was divided and sold to different owners. When her new owner died in 1856, Brown received her freedom and began to search for

her family members, including her daughter Eliza Jane, who reportedly had moved west. By law she had to leave Kentucky within a year if she were to retain her freedom after being manumitted. She moved to St. Louis, Missouri, and then to Leavenworth, Kansas where she worked as a domestic. In April 1859 Brown learned of a wagon train that was leaving for Colorado and asked if she could join the caravan as a cook in exchange for her fare. Upon arriving in Colorado, she opened a bakery, a one-room cabin for prayer meetings, and ultimately the state's first commercial laundry (Shirley 2012).

She then used savings to return to Kentucky in the hope of finding her family. While she was not successful in that endeavor, she did invite former slaves to return with her to Colorado, agreeing to finance their journeys and house them temporarily, while at the same time making clear that they would be responsible for establishing themselves with employment and permanent residence.

Floods destroyed a number of the buildings she owned in Denver, as well as washing away her deeds of ownership. In 1873 a fire destroyed three buildings she owned in Central City, and she subsequently lost more savings to con artists. In 1882 a friend wrote to Brown that a woman matching Eliza Jane's description was living in the Midwest, and having traveled to Iowa, she encountered her daughter while traveling through town. Brown returned to Colorado, accompanied by her daughter and a granddaughter, and the three remained there for the remainder of Brown's life. A permanent chair has been dedicated to Brown at the Central City Opera House in Colorado, and she has been inducted into the Colorado Women's Hall of Fame (Shirley 2012).

Katherine Caroline "Kittie" Wilkins (1857-1936) was an early twentieth-century horse breeder based in Idaho who supplied horses throughout North America, but otherwise conformed to the gender mores of the Victorian era during which she lived. Dubbed the "Horse Queen of Idaho" Kittie Wilkins was the only American woman at that time who based her livelihood solely on horse breeding. The Wilkins family developed a horse and cattle business after their move west, before Kittie Wilkins was born; however, Kittie Wilkins herself preferred to specialize in horses. At the height of her career she supplied horses throughout North America as far as the Yukon; she also supplied horses for the Boer War in South Africa (Bragg 2001; Homan 2008, 2008a, 2008b, 2009, 2010, 2015).

As historian and Wilkins' biographer Philip Homan explains:

"Kittie Wilkins was the public face of the Wilkins Horse Company. A woman of superlatives, she was said to be the only woman at the turn of the twentieth century whose sole occupation was as a horse dealer. There was hardly more

masculine a career. The “Queen of Diamonds,” as she was also known, sold horses by the carloads, even the trainloads, in the livestock markets of the United States. Newspapers in cities along the Union Pacific and other railroads announced her arrival at the stockyards with headlines like “The Only One of Her Kind,” “She Is a New Type,” and “Is Consistent Womanhood.” Papers throughout the United States, even the world, spread the word about the Idaho girl who was America’s best judge of the quality and the value of horses and who was making a fortune selling them (Homan 2015: 2).

At the same time, as Homan as well as her contemporaries made clear, Wilkins was unorthodox only by being a woman and a horse-breeder, and a successful one at that. Otherwise, she conformed entirely to the Victorian era norms of her day, including being an accomplished pianist, showing disdain for the newly invented bicycle as unladylike, willingly leaving the coarser aspects of ranching to men, and always riding side-saddle in full Victorian dress:

“In spite of all her publicity, however, Kittie Wilkins was the opposite of what the newspaper reporters expected. She didn’t fit the stereotype of the New Woman of the turn of the twentieth century. A ‘thoroughly womanly woman,’ as the newspapers called her, she was a different type of the New Woman. She eschewed the rough end of ranching, for which she always gave credit to her father and brothers. As she told the *Denver Post* during an interview in 1898, ‘Next to petting my favorite horses, I like nothing better than to sit down at my piano and let my fingers drift along the keys until I have exhausted my entire repertoire’” (Homan 2015: 2).

The examples of Clara Brown and Kittie Wilkins in history illustrate a different aspect of marginalization than those of the preceding paragraphs. Apart from their both being women and both being entrepreneurs, their backgrounds differ drastically. Brown was born into slavery; her sense of opportunism, her business acumen, and above all, her faith and longing to reunite with her family led her to a remarkable, if not constant, prosperity. Conversely, Wilkins continued a family legacy, such that her initial challenges were focused not on poverty or disenfranchisement, but rather on establishing her own legitimacy in a male-dominated occupation, which she did, not only successfully, but very much on her own terms as a woman of her era.

With this combination of similarities and differences, a key common element in the lives of Brown and Wilkins is that neither was entirely conformist, nor entirely departing from conformity. Certainly Clara Brown was a pioneer, both literally in her westward migration and also in her commercial and philanthropic

undertakings. Yet, whether by choice or by necessity of survival, she led her life first within the norm of slavery, then within the norm of a freedom individually granted, not gained either through rebellion or through legal and political change. As unjust as her life was, timing worked in her favor when her second master's death resulted in her manumission, and she had the combination of skill, desire, faith and determination to optimize her newfound freedom and then to support others' optimization of theirs after the Civil War. She was an innovator, entrepreneur, and trailblazer, not a revolutionary. Although she was not the only African-American woman to migrate westward and start a business, she was unique in the fact that she paved the way before the Civil War ended. This may explain why her life was minimally recorded, for she would not have been counted among her white male counterparts seeking opportunities in the American West, nor would she be included among noted abolitionists, because while she no doubt did not support slavery, she worked within its unjust constraints to transcend those constraints through individual initiative and later generosity.

As for Kittie Wilkins, she lived at a time when images of women in the American West ranged from the long-suffering, socially deprived pioneer wife in an isolated cabin to the woman outlaw who had doffed femininity in exchange for spurs and pistols, to the saloon women of ill repute who had little chance of survival apart from unsavory activities. Kittie Wilkins stood—and her legacy stands—in drastic contrast to all of these images, as someone financially independent, unmarried, but adhering to the social mores for women of her era. As such she paved her own way and thus defied categorization, including the type of categorization that may have brought her to greater salience through the centuries.

Marginalization and Obscurity Due to Asymmetrical Representation in Folklore and the Creative Arts

Those Who Warned that the British Were Coming: Paul Revere, William Dawes, Samuel Prescott, Israel Bissell, Sybil Ludington:

Paul Revere's Ride (excerpt)

Listen my children and you shall hear
Of the midnight ride of Paul Revere,
On the eighteenth of April, in Seventy-five;
Hardly a man is now alive
Who remembers that famous day and year.

Henry Wadsworth Longfellow

The above lines are cited from Henry Wadsworth Longfellow's famous poem, written in 1860, at a time when the consolidation of American nationalism included the revival of past notable individuals who had fought in the American Revolution. Longfellow's poem has become seminal among American verse, and is largely credited with Paul Revere's longstanding fame, while his compatriots and others who rode alone to warn of the British at different times have remained in relative or almost total obscurity. Ironically, Longfellow's statement that "Hardly a man is now alive Who remembers that famous day and year" suggests less than one century after the American Revolution, Paul Revere had also been obscured, hence Longfellow's motivation to reinstate his reputation with the poem.

The preceding section of this article presents pairs of individuals who have been asymmetrically recognized and documented through history. The following examples of American revolutionary patriots who rode long distances to warn colonists of British encroachment illustrate how individuals can be historically marginalized, even when documentation is relatively equally abundant and accessible (Fisher 1995). *Paul Revere (1735-1818)* was a prominent Massachusetts silversmith, engraver, and industrialist, whose achievements included helping to organize an alarm system to monitor the British military prior to and during the American Revolution. He also served in the Massachusetts militia (Fisher 1995; Miller 2010). *William Dawes (1745-1799)* was a successful tanner who in 1776 was appointed second major of the Boston militia regiment. During the American Revolution he also worked as a quartermaster in central Massachusetts (Fisher 1995). *Samuel Prescott (1751 – c. 1777)* was a physician and the only one of the three to complete the celebrated ride to Concord with the warning that the British were *en route*. While very little is documented about his life—Charles Caes, who has written the only comprehensive biography of Prescott, notes his preference for the use of the word "legend" in the book title, given the paucity of information—there is evidence that Prescott served as a surgeon in the Continental Army (Caes 2009).

On April 18, 1775, American physician and revolutionary Joseph Warren instructed Revere, as well as William Dawes (see below), to signal Charlestown that British troops were *en route* and to ride to Lexington to warn Sons of Liberty compatriots John Hancock and Samuel Adams that their arrest by the British was imminent. Revere rode silently northward (not shouting, as is popularly believed, "The British are coming!") and met John Hancock and Samuel Adams whom he warned of their arrest by the British. Revere and Dawes departed Lexington for Concord, where they met Samuel Prescott *en route* (see below). As a native of

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Concord, Prescott knew the territory intimately and could thus guide the other two. The three diverged, but only Prescott completed the journey. Revere was captured by the British, and though he was released after questioning, the British confiscated his horse; thus he returned to Lexington on foot. Dawes also returned to Lexington on foot, as he was not able to locate his horse, which had thrown him after the three had dispersed.

In 1896 American poet Helen F. Moore employed mimicry of Longfellow's tribute to Paul Revere with her own poetic account of William Dawes' ride::

The Midnight Ride of William Dawes (excerpt)

'Tis all very well for the children to hear
Of the midnight ride of Paul Revere;
But why should my name be quite forgot,
Who rode as boldly and well, God wot?
Why should I ask? The reason is clear-
My name was Dawes and his Revere.

by Helen F. Moore

Apart from the rides of Revere, Dawes, and Prescott, two other individuals, Israel Bissell and Sybil Ludington, are among those lesser known for riding to warn of the British; and indeed there are undoubtedly many others who have remained anonymous through the centuries. *Israel Bissell (1752 - 1823)* was a Massachusetts professional post rider for the American colonists. He is credited with riding on 19 April 1775 to warn colonists of the approaching British longer than Dawes, Prescott, or Revere, or Ludington—a total of four days, six hours, traveling 345 miles from Watertown, MA to Philadelphia, PA, all along the Old Post Road. Following the ride, Bissell enlisted in the Connecticut regiment in which he rose to the rank of sergeant under Colonel Erastus Wolcott, who was one of the signatories to the Declaration of Independence (paulreveresride.org 2010).

"150 Years of Paul Revere's Ride" a website commemorating the 150th anniversary in 2010 of Longfellow's poem, has reprinted poetic humorous mimicry by Gerard Chapman and Clay Perry about Israel Bissell's ride, similar to that by Helen F. Moore regarding William Dawes. Excerpts are as follows (paulreveresride.org):

Israel Bissell's Ride (excerpt)

Listen, my children, and you shall hear
Of Israel Bissell of yesteryear:
A poet-less patriot whose fame, I fear,

Was eclipsed by that of Paul Revere.
He lacks the renown that accrued to Revere
For no rhymester wrote ballad to blazon his fame;
But Bissell accomplished—and isn't it queer?—
A feat that suggested Revere's to be tame.

by Gerard Chapman

I. Bissell's Ride (excerpt)
Listen, my children, to my epistle
Of the long, long ride of Israel Bissell,
Who outrode Paul by miles and time
But didn't rate a poet's rhyme.

by Clay Perry

Sybil Ludington (1761-1839), daughter of American Revolutionary Col. Henry Ludington, is celebrated for her nocturnal ride of 26 April 1777 to warn the colonial militia of the approach of the British. She was 16 years old and her journey was more than twice the miles of that of Paul Revere and his compatriots. Also, Ludington rode alone. Although Ludington remained little-known throughout many generations, her legacy was revived over time with aspirations and efforts toward a more inclusive American history (Bohrer 2008; Hunt 2015). As historian Paula Hunt explains, as history connected to the American Revolution, Sybil's ride embraces the mythical meanings and values expressed in the country's founding. Hunt traces and analyzes the sporadic salience of Ludington in the narrative of the American Revolution and the nation's founding, growth, and values of individuality, courage, allegiance, and inclusion:

"Examining the story of Sybil reveals the various ways in which Americans of many stripes, in attempting to connect with the nation's past, can create a hero who advances their cause in response to contemporary political, social, and economic realities" (Hunt 2015: 188).

From Marginalization to Center: The Example of Crispus Attucks:

Sometimes marginalization occurs simply because not enough is documented about a person's life. Ironically, those marginalized individuals may at times occupy more preeminent places in history than their better-documented counterparts. *Crispus Attucks (c.1723—March 5, 1770)*, killed in the Boston Massacre at the beginning of the American Revolution, is widely regarded as the first American to be killed in the Revolution. Almost nothing is known of his life, except that he was born near Framingham, Massachusetts, probably of combined African and

Native American descent. He may have been a fugitive slave, but at the time of the Boston Massacre, he was a sailor and a dockworker. Quite differently than the poetic parodies of praise for William Dawes and Israel Bissell and the admittedly legendary but nevertheless temporally circumscribed biography of Samuel Prescott, Crispus Attucks has become an ongoing symbol of African-American patriotism and nation-building in American history, culminating most recently with the election of Barack Obama, the United States' first African-American president, a continuum that historian Mitch Kachun has traced from the time of the Boston Massacre to the present (Kachun 2017). As Kachun explains:

"There will likely never be a definitive biography of Crispus Attucks. Generations of scholars have probed the sources with only limited success in uncovering information about the man's actual life. While what can and cannot be known about Attucks addressed here, the focus is on how he has been remembered, and why at times he has been forgotten, by different groups and individuals in different periods of American history. This approach to understanding the past generally known as the study of 'history and memory', considers not only how professional academic historians construct their interpretations of the past but also how broader societies arrive at shared understandings of historical events and individuals and how those understandings change over time. Examining these processes helps us come to terms with 'history' in both senses of the word—the actual events of the past and the storylines that have developed and explain the meaning of those events (Kachun 2017: 2).

"The creation of a heroic Crispus Attucks, like the creation of all heroes, illustrates the power of collective memory and the importance of pondering both what is remembered and what is forgotten, and why" (Kachun 2017: 6).

The paradoxical yet understandable elevation of Crispus Attucks, whose life story may have been totally lost in history, had it not been for his premature death at the hands of the British, to near-iconic status unrestrained by time or mortality, raises a point made at the beginning of his article, namely that the more obscure a person is immediately following his/her lifetime, often the more celebrated that individual becomes in collective memory. The dearth of factual documents opens possibilities for imagination with each discovery and re-discovery. The responsibility of the educator in this process is to present the individual as accurately as possible, but also to recognize fully the broader symbolic importance of both that person and the conditions and events that influence and are influenced by symbolism. Again, to quote Kachun:

“Does Crispus Attucks deserve to be treated as an American hero? Should he be enshrined as the first Martyr of Liberty? I have my doubts. We simply do not know enough about his experiences, associations, mindset, or motives before or during the Boston Massacre to make any such judgment. Even many of his actions on that day remain unclear. But does he deserve to be included in the nation’s story? Absolutely. It does not matter whether he was a leader, or a friend of Revere and Hancock, or well-read in political philosophy, or a good Christian, or active in the Sons of Liberty, or merely a drunken dock worker. His very presence in that mob on March 5, 1770—along with the other blacks, and sailors and workers and immigrants who were in the streets with him that day—embodies the diversity of colonial America and the active participation of workers and people of color in the public life of the Revolutionary era. The strong likelihood that Attucks was a former slave who claimed his own freedom and carved out a life for himself in the colonial Atlantic world adds to his story’s historical significance. The lived realities of Crispus Attucks and the many other men and women like him must be a part of Americans’ understanding of the nation’s founding generations (Kachun 2017: 234).

Summary and Conclusions:

Marginalization in history of noteworthy individuals takes place for diverse reasons, ranging from outright discrimination to personal characteristics to historical accident. As generations continue, we are called again and again to the challenge of discovery of those unknown and rediscovery of those whom we thought we knew.

How then can we learn what we do not know? One way is to honor digressions that arise in the course of research and other activities. The reality of multiple responsibilities and deadlines often keeps us solely attentive to the task at hand. While this focus is necessary and frequently desirable, digressions can lead us to a wealth of information and insight. Like the reminder or comment written in the margin of a page, following a trajectory started by the mention of someone or something previously unfamiliar can unfold a wealth of discoveries and new insights.

Another is to recognize the value of myth and legend, both in oral and written form, and to find ways to assimilate these narrative forms into scholarship without sacrificing rigor. Returning briefly to Sacagawea, anthropologist Sally McBeth, like a number of her colleagues in the discipline, offers the following commentary regarding the oral tradition:

"It goes without saying that in an oral tradition, the telling of the tale may change with each speaker and that the words are sure to change over time. Without oral history, however, cultures that continue to rely (at least in part) on the oral passage of traditions could lose all relationship with past traditions. This loss would weaken and seriously erode current tribal and collective identities. The second issue is that these stories can be read as maps of the cultures that create them. As such, they help the reader navigate through the cultural contours of the distant and the more recent past. These narratives are complex constructions of social histories that should be understood in terms of the nature of the society in which they are told and re-told. These stories explore fundamental truths about the importance of identity and, as such, constitute a significant expression of culture" (McBeth 2003: 2).

Thus while we strive for accuracy and precision in what we teach, we need also to strive for inclusion of diverse perspectives, both to safeguard the cultures that are the sources of those perspectives, and also to remind ourselves and others constantly that truth is the dynamic and complex offspring of the time and place in which it is observed and experienced, and of the people who record and tell it.

Furthermore, incorporating oral narrative and other sources of knowledge reminds us that the printed word is not sacrosanct, nor has it been written in a vacuum. The most authoritative documents reflect the people who have written them and the times in which those people lived. This is even clearer in the examples of Sybil Ludington and Crispus Attucks, for whom lack of documentation has led ultimately to more written material to elevate them to heroic status at designated times in history when their representation was needed.

Related to these two approaches, honoring digressions and recognizing and incorporating multiple narrative forms, is the need to engage in meta-learning that is, learning how and why we learn what we learn. Much marginalization can often be attributed to the ways in which we seek and process information, which in turn has a reciprocal influence on access to information over time. Thus, the more we honor digressions and incorporate alternative ways of knowing into our scholarship and our pedagogy, the more likely we are to keep vibrant the art of discovery which is the lifeblood of all learning.

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Migration turned Urban Disadvantaged: Status of Education among Children in Slums of two Cities

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Abstract

Rapid urbanization of spatial areas is a phenomenon that is organically linked with development of services, spread of industries, better infrastructure and advanced systems of governance. While there is an attractive side to urbanization, there are parallel undercurrents too that accompany this phenomena. Migration is one such undercurrent that is characteristic of cities world over and is fast reflecting the intra-urban infrastructural, education and health inequalities emerging in cities. People from nearby rural or semi-urban areas throng cities in search of livelihood and opportunities that range from economic prospects, better health and education services. Urbanization thus pulls the fringe population within its ambit who reside in settlements that are temporary and fragile. The urban poor residing in squatter settlements and slums have unequal access to basic services and amenities that are available to those who are the legal occupants of the city. The hardest hit opportunities are related to health and education, which adversely impacts the mobility of slum dwellers into higher economic classes. Against this background, the paper gives a definitive account of the social and educational status of children living in slums of Hyderabad and Ludhiana, as part of the urban disadvantaged population. The paper highlights complexity of issue of participation of children in the context of processes of urbanization and migration that shape the educational coordinates and outcomes of children living in slums.

Key Words: Migration, Education, Urban Children, Slums

Section I

Introduction

The emerging urban landscape under the rubric of globalization is characterized with several contradictions and tensions. The urban areas, particularly mega polis or mega cities are associated with upward mobility, vast opportunities, and engines of economic growth in the popular imagination. This perception however overlooks

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the reality on the other side. This 'other side' is characterized by some glaring realities such as abject poverty, vulnerability and fragile living conditions, no security either to lives or properties; living on edges outside the legal system and constitutional frameworks whereby basic human rights and entitlements are denied. Although this description appears to be somewhat outrageous, the reality is perhaps even more somber. The living conditions in slums are dismal also because there is no or minimal provision of public services such as water, electricity, drainage, health and education. Caught in this web of poverty and multiple drawbacks are the children living in slums, and when we look at their numbers, it is not insignificant. It has been observed in many researches that India must reap the benefits of the demographic dividend, essentially tapping the potential of one of the largest population of youth among the nations of the world. Quoted in a recent report, the figures of Census 2011 reveal that over 65 percent of the population that resides in India is below 35 years of age and 39 percent is below 18 years of age. The same source states that more than 8 million children under six years live in slums (Save the Children 2015). This is an astounding estimate of children who are living in abject poverty and lack educational opportunity either in physical numbers or in quality. Basing its information on Census 2011, the same report also alleged that though the child population (0 to 18 years) increased by 12.8 percent in urban areas between the last and the present census, there was not found a commensurate increase in enrolment of children or increase in teacher facilities, possibly hinting at the silent exclusion of children living in slums.

At this stage one can only state a few reasons for the documented poor educational status of these children. It is well known that a child's going to school has both supply-side and demand-side determinants. In the context of a slum, access to schooling is limited due to non-availability of schools as well as due to background factors of the children. Besides the lack of economic and educational capital of parents, factors such as spousal violence, drug abuse and environmental hazards play havoc with the physiological, mental and emotional well being of children. Since most of the children in slums belong to migrant families, another background factor is their mother tongue which is often at loggerheads with the medium of instruction of schools in destination cities. This is found as one of the major reasons why children remain out of the education system or gradually exclude themselves as they find difficulty in comprehending teaching at school. The basic issue in this context is whether the State is making sufficient quality education provisions for the children living in slum areas? Are children able to utilize the educational facility and if not, what are the constraints and impediments for the children to attend the school or remain in the school? How do household and

individual characteristics influence whether a child goes to school or not? Whether children after attending school are able to learn? What is the achievement level of children? This paper provides an account of the educational status of children living in the fringes of the urban cities, in temporary and shanty settlements as marginalized sections of the society. The arguments presented in this paper are based on an extensive field research in selected slums of two metropolitan cities (Hyderabad and Ludhiana) in India focusing on the access, participation and learning levels of children cutting across all levels of school education.

Method: Extensive household survey was conducted in selected slum area for collecting data from households at each level (ST, SC, OBC & Other). Parents were contacted in each household for ascertaining the importance of education, available schooling facilities in the neighborhood, enrolment of children in the school and kind of school attended by children (Government or private) and retention of children. These interactions were useful to understand the reason for the choice of school. The household schedule had been developed consisting of close-ended multiple response questions, and a few open-ended questions. The questions had been pre-coded to facilitate the generation of output tables. The learning assessment test was also administered to children and the findings are discussed below in different sections.

The paper is organized as follows: Section I deals with the context and introduction of the theme of paper. Section II is a detailed exposition of demographic and educational status of selected households and school going status of children belonging to 6-17 years of age group. Relationship between the mothers' education, monthly income and status of children is explored. Section III focuses on the learning achievement of children in classes III, VII and IX in the schools. Section IV brings together the key findings of this empirical research and builds a case for inclusion of challenges faced by children in slums into the national educational policy and planning.

Brief review of related literature on education of children in slum areas

Number of research studies have been conducted which highlights that the educational issues and problems confronted by children living in slums are complex and diverse and this is becoming one of the focal areas for researchers. Few studies point out that the people from rural areas migrate due to poverty, distress and with the hope of better educational and job opportunities (Deshingkar 2005; Lusome and Bhagat 2006; Singh, 2009). Few authors note that for the temporary migrants seasonal industries and informal work in urban areas are the popular reasons for migration (Srivastava and Sasi Kumar 2003; Deshingkar 2008). At

micro level research evidence (Khasnabis and Chatterjee, 2007; Stuart Cameron, 2010; Patel, 1983; Chugh, 2004, Seshu kumari et al. 2008) is available which highlights that the school are not available to children living in slum areas as the slums have emerged in unplanned manner. Few researchers observe that that despite school availability in short distances, the educational participation among slum children is barely above fifty percent and overage and dropout are rampant among these children (Chugh 2004; Tsujita, 2009, Lewis 2010). Netsayi et.al (2008) discusses how perception of personal security impacts school enrollment and attendance. It mainly focuses on threats of physical harm, crime, community and domestic violence. Few studies found that that the private schools are playing an important role in reaching the poor and satisfying their educational needs as even the poor parents have a preference for private schools (Tooley, 2007; Boyle, 2002; Srivastava, 2007; Woodhead, 2013).

However few attempts have been made to present a holistic picture and this leaves room for this paper to re-examine the educational status of children living in urban areas up-to secondary level of education and tries to present a comprehensive picture by focusing on access, participation and learning achievement level of children living in select slum areas.

Section II

Comparing Educational Status of Children in Sample Household of Hyderabad and Ludhiana

This section is based on the data collected from select households of seven slums of Hyderabad and Ludhiana city. The information was collected from 622 household having total population of 3076 in Ludhiana and 706 households with a population of 3078. Information on variety of socio economic and educational indicators was collected to investigate the kind and extent of educational facilities available in the neighbourhood and also on the participation rate of children in school. Few stylised facts based on data analysis are presented below:

Age Composition of Population in the selected households

There exists a close link between the demography and education. The age structure of a population, that is; the distribution of the population in different age groups, helps the planners to determine the number of schools required for the school going population. Information on age composition in select households is given in Figure 2

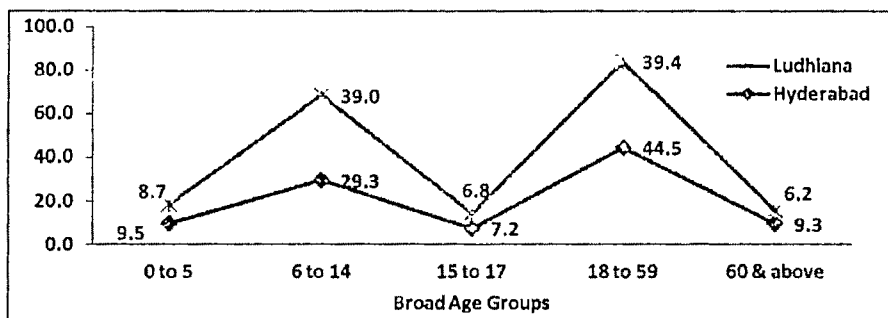


Figure 2 : Age Composition of Population

The figure make it clear that around 39 percent of children in Ludhiana were in the age group of 6-14 years and around 6.8 percent children were in the age group of 15-17 whereas in Hyderabad around 29.3 percent were in the age group of 6-14 years of age and 7.2 percent were in 15-17 years of age group which implies that in Ludhiana around 46 percent children were of school going age and in Hyderabad, around 36 percent were of the school going age group from the sample households.

Composition of Population by Social Groups in Sample Households

On the basis of the surveyed households, four distinct social categories of households have been identified. This information is useful to understand as to which category of social groups migrate to the slum areas (Figure 3).

Figure 3: Composition of Population by Social Groups

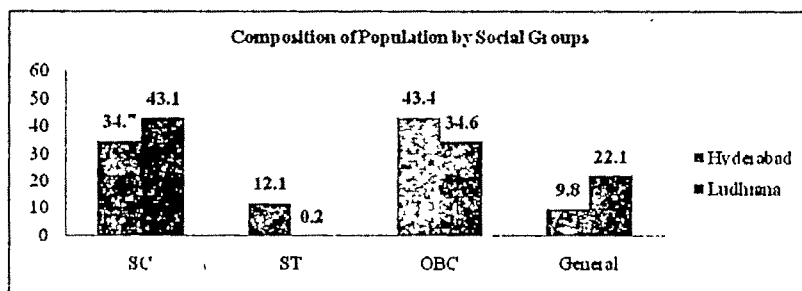


Figure 3 on social composition of population makes it clear that the OBSs and SC population comprise a significant proportion of population in these areas. This could be probably this group of population is primarily landless labourers in their native place therefore migrate to urban areas for better living and opportunities. In Hyderabad, 43.4 percent of people in the selected households belonged to other backward classes followed by scheduled castes (34.7 percent). There were about 9.8 percent who belonged to the general category and 12.1 percent who

belonged to scheduled tribes in Hyderabad. In Ludhiana, however, the proportion of scheduled caste category was higher (43.1 percent) than all other categories. There was a substantial portion of other backward classes too in selected households of Ludhiana (34.6 percent).

Distance of School from Household

The national norm for providing primary school within 1km and upper primary school within 3kms radius from the household was established keeping in view the reality that this distance could be easily traversed by children of lower age groups (6-10 years of age for primary level and 11-14 years of age for upper primary level). Even this has been further specified by the RTE Act 2009 which stipulates that the state shall provide school in the neighbourhood and if the school is not available in the neighbourhood the State shall make transport arrangements. This is still to be implemented for the children living in slum areas. Despite the increase of population in the slum areas, the state governments have not been able to open adequate number of schools corresponding to the school attending population in these areas. There is a gap between demand and supply and therefore the access to schooling facility is inadequate in many areas. Considering the significance of availability of public schools for children living in slum areas, the information was obtained which is presented in Table I

Table I: Distance from Household to School

Distance	Hyderabad		Ludhiana	
	Number	%	Number	%
Up to 1 km.	500	57.4	-	-
1 to 3 kms.	270	31	453	64.9
3 to 5 kms.	58	6.7	221	31.7
> 5 kms.	43	4.9	23	3.4
Total	871	100	697	100

The number of schools available near the slums was higher in Hyderabad in comparison to Ludhiana. In Hyderabad even secondary schools were available within short distance, whereas in Ludhiana even primary schools were not located at a convenient place for the child to access. The schools were not located within the slum in both the places. In Hyderabad, the school located nearest to slum was around 500 meters away but in Ludhiana schools were located at a distance of around 1.5 to 3 kms. In Ludhiana, very few children attended schools which

were located around 5 kms away from the households of the children. Even though one school in each of the selected slum was located at a distance of around 1.5 to 2 kms, the roads around were not safe. These schools were also not able to accommodate all the children from these sampled households as they served other habitations as well. In Hyderabad more than half (57.4 percent) of school going children reported that the schools they attended were located within 1 km radius where as in Ludhiana 65 percent of the children reported a distance of about 2 kms of schools from their residence. In Ludhiana, in two of the slums, the children had to cross railway crossing even for reaching to primary school and another school was situated on the main link road and the children needed to cross a busy road to reach to the school. Thus the schools were neither available to them in the neighbourhood nor in a safe zone. Adding to the plight of these children, was the fact that their parents remained busy earning wages, therefore could not drop them to school. Access to schools was marred by long distances and extreme weather in a city like Ludhiana. In comparison, distances to schools were shorter from the selected slums in Hyderabad, facilitating access to schools at both elementary and secondary levels.

Educational Status of the Children from Sample Households

The starting point of the analysis of educational status of children in the slums was to have a micro picture of how many children went to school, how many dropped out from the education system and how many never enrolled in any of the classes, which is provided in the Figure below:

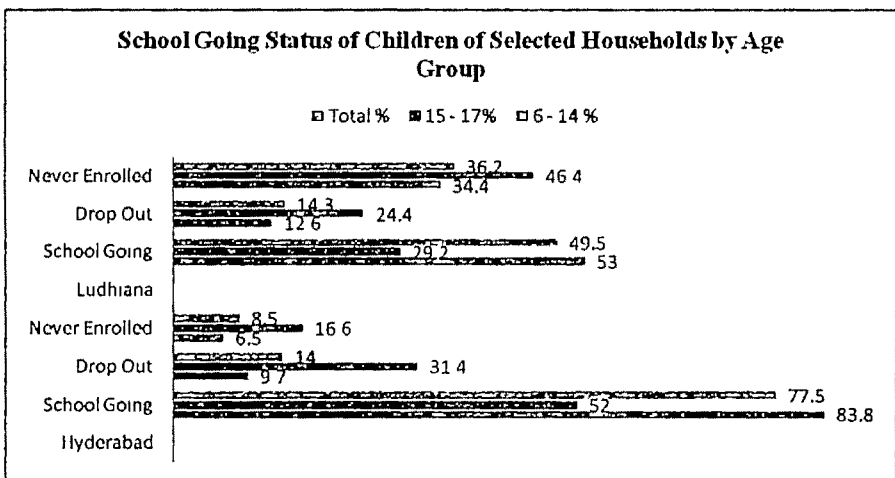


Figure 4 Educational Status of Children by Age

Figure 4 clearly show that in Ludhiana, around half of the total students from the sample households were attending schools and little more than half of them were out of school which is a matter of serious concern especially in the context of RTE 2009. In Hyderabad, around 77 percent children were attending school and around 9 percent children had never enrolled whereas, in Ludhiana around, 36 percent children had never been enrolled. Educational status of children by different age group as to be classified into elementary level of education (6-14 years) and secondary level (15-17 years) is given in Figure 3.

The figures clearly reflect that percentage of children attending school in the age group of 15-17 years is very low in comparison to children attending school in the age group of 6-14 years. This holds true for both Ludhiana and Hyderabad. Dropout rate is also very high among children in the age group of 15-17 years of age. While around 84 percent children of 6-14 years of age are attending school, only 52 percent children in the age group of 15-17 years are attending school. In Ludhiana around 53 percent of children of 6-14 years of age are attending school, only 29 percent children in the age group of 15-17 years are attending school. It is possible that with the state intervention and special measures to improve the enrolment at elementary level, the participation of children in the age group of 6-14 years of age has improved. Participation of children in the age group of 15-17 years of age drastically decline as in Hyderabad dropout rate is as high as 31 percent and for Ludhiana it is 24 percent. Further research needs to be conducted to probe as to whether due to non availability of schools or home compulsions or the children prefer to work in the informal sector that contribute to low participation. Disaggregated information on number of children attending different kind of schools is given below.

Kind of school attended by the children - Gender wise

Research has determined that parental attitude and support has a great deal of influence on girls' enrolment in school. A major deterrent to girl child education is a near universal fundamental cultural bias in favour of the boy child. The widespread operation of patriarchal system in Indian society, heavier domestic duties, like attending to household chores, customary early marriage, a generally lower regard for the value of female life, all combine to adversely affect the participation of girls, especially from poor households, in formal education. If the parents can afford to pay for private institutions, it is generally the boys who are sent to private schools while girls are sent to government schools. Information was collected on the kind of school attended by the girls and boys from the select households and the same is presented in the Table II:

Table II: Kind of school attended by the children - Gender wise

Management of School	Gender of the children					
	Boys	%	Girls	%	Total	%
Hyderabad						
Government	332	82.8	296	71.5	628	72.2
Private	124	27.2	118	28.5	242	27.8
Total	456	100	414	100	871	100
Ludhiana						
Government	301	77.6	297	96.4	598	85.9
Private	87	22.4	11	3.6	98	14.1
Total	388	100	308	100	696	100

In Ludhiana, the difference between the boys and girls in attending private school is significant as around 22 percent of boys and only around 4 percent of girls were found to be attending such schools. Further, over 96 percent of the girls are attending government schools compared to around 78 percent boys. It is encouraging to observe that in Hyderabad, marginal difference is observed, with a higher percentage of girls attending private school in comparison to boys. Around 83 percent boys compared to 72 percent girls are attending government school and this could be attributed to socio- cultural factors and a prevailing positive attitude of families towards girls' education.

Educational attainment level of mother in the selected households

Mother's education is found to be a stronger determinant of her children's education than the father's, especially with male children. Mother's schooling could reflect as an advantage more in early childhood and the probability of the child attending school increases. The present study affirms these findings. The educational attainment level of mother was analyzed and juxtaposed with attendance status of children and presented in Table III

Table III: Educational Level of Mothers and Educational status of Children

Mothers' Education	Educational Status of Children							
	School Going	%	Drop out	%	Never Enrolled	%	Total	%
Hyderabad								
Illiterate	422	72.0	106	18.1	58	9.9	586	100
Primary	84	80.0	18	17.1	3	2.9	105	100
Upper Primary	84	85.7	5	5.1	9	9.2	98	100
Secondary & above	145	92.9	5	3.2	6	3.8	156	100
Total	735	77.8	134	14.2	76	8	945	100
Ludhiana								
Illiterate	576	46.6	186	15.0	474	38.3	1236	100
Primary	81	74.3	7	6.4	21	19.3	109	100
Upper Primary	21	75.0	3	10.7	4	14.3	28	100
Secondary & above	6	66.7	1	11.1	2	22.2	9	100
Total	684	49.5	197	14.3	501	36.3	1382	100

Figures in Table III show that in Hyderabad, number of children attending school was comparatively lower in the case of illiterate mothers in comparison to the literate and educated mother and a similar situation is found in Ludhiana also. In Hyderabad, around 93 percent children are attending school when the mother is educated upto secondary and above level, with the corresponding percentage of school attendees being 67 in Ludhiana. The drop-out and never-enrolled children's proportion decreases with increase in the level of education of mothers in the selected slums of both the cities. In Ludhiana, around 53 percent children are not attending school (38 percent never enrolled and 15 percent dropped out) when the mothers' did not have any education and were illiterate.

Household Monthly Per capita Income and Education Status

Apart from annual income of household, it is important to know the variation in school attainment with the monthly per capita income of household because it determines the economic condition of a household that influences the chance of a child to attend school. The data is presented in Table IV

Table IV: Household Monthly Per capita Income and Education Status

Monthly Per capita Income	Educational Status of the Children							
	School-Going	%	Drop-out	%	Never-Enrolled	%	Total	%
Hyderabad								
<250	24	64.9	11	29.7	2	5.4	37	100
251 to 500	119	69.6	39	22.8	13	7.6	171	100
501 to 750	178	73.0	43	17.6	23	9.4	244	100
751 to 1000	239	79.7	33	11.0	28	9.3	300	100
1001 to 1500	200	84.0	20	8.4	18	7.6	238	100
>1500	111	82.8	11	8.2	12	9.0	134	100
Total	871	77.5	157	14.0	96	8.5	1124	100
Ludhiana								
<250	55	34.4	11	6.9	94	58.8	160	100
251 to 500	201	42.1	44	9.2	232	48.6	477	100
501 to 750	132	46.0	55	19.2	100	34.8	287	100
751 to 1000	183	65.4	44	15.7	53	18.9	280	100
1001 to 1500	110	60.1	43	23.5	30	16.4	183	100
>1500	16	76.2	5	23.8	0	0.0	21	100
Total	697	49.5	202	14.3	509	36.2	1408	100

Figures in Table IV reveal that with increase in the per capita income, the probability of child's attending school increases. In Hyderabad, around 80 percent children were found to be attending school whose families' per capita income is in the range of Rs. 751 to 1000 per month. Similarly, in Ludhiana, around 65 percent children are attending school when the per capita income of the family is in the same range. In low per capita income families, having income less than Rs 250 per month, only around 34 percent children are attending schools; the corresponding figure for Hyderabad is around 65 percent.

Choice of school

A careful observation of current trends in India, especially in urban areas, in terms of parents' preference for educational institution for their children would reveal an inclination towards privately run educational institutions, as opposed to public institutions. The parents prefer to send their children to private schools

with the belief that the quality of education is better in such schools. It seems that there is a persistent and widespread loss of confidence in public educational institutions. Despite this, the government still remains the main provider of education and children from these areas are attending these schools. The children are being sent to government schools as they are easily accessible in economic and social terms. Table V gives information on the preference of parents for selecting a particular kind of school and the reason for the same.

Table V: Reasons for Selection of Government and Private school

Reasons for selection of school	Govt.		Pvt.	
	Hyderabad	Ludhiana	Hyderabad	Ludhiana
	No (%)	No (%)	No (%)	No (%)
Due to infrastructures	118 (18.8)	97 (17.3)	-	-
Due to easy access	193 (30.7)	159 (28.4)		
Due to responsiveness of the teachers	-	40 (7.1)	109 (44.8)	84 (85.7)
Due to medium of instruction	39 (6.2)	19 (3.3)	111 (45.7)	11 (11.3)
Due to examination result	-	5 (0.9)	-	-
Due to status and reputation of the school	53 (8.4)	30 (5.4)	23 (9.5)	1 (3.0)
Due to low cost	225 (35.8)	210 (37.6)	-	-
Total	628 (100)	559 (100)	243 (100)	98 (100)

In Ludhiana and Hyderabad, around 29 to 31 percent parents respectively preferred government schools due to its close proximity to their homes. The most significant reason cited by them was the low- cost and expenditure with added incentives like free books, uniform and mid-day meal. Around 19 percent parents in Hyderabad and 17 percent parents in Ludhiana preferred government schools because of infrastructure as these schools were better in comparison to the low-cost small private schools.

In Ludhiana as well as in Hyderabad, responsiveness of the teachers emerged as the most significant reason for choice of private school, while in Hyderabad the medium of instruction was also given equal weightage for selecting the private school.

The above findings amply demonstrated the change of place from rural to urban area creates series of hurdles in the path of education of a child particularly in coping up with demands of education and changing social set up. Unlike rural areas, these temporary settlements do not have the luxury of a community support

and fixed neighborhood. These factors adversely affect the learning achievements and outcomes of school going children thus often resulting in massive dropout and stagnation. Section IV discusses the learning achievement levels of children.

Section IV

Learning Competencies of Children

To assess the academic competencies the survey was conducted in 17 schools out of which 9 schools were selected from Ludhiana and 8 schools were selected from Hyderabad. . The learning level of children was assessed by giving them test in the language and mathematics corresponding to their respective grade. Though not all, but a large number of schools were covered.

Achievement Scores in Mathematics: Schools in Hyderabad

Mathematics is often perceived as a dreadful and difficult subject and generally students find it difficult to comprehend. Data from the field also seems to indicate this fear. Table VI depicts the score range for assessment in mathematics of children in schools of Hyderabad. While looking at the low range of scores, the data showed that around 54 percent children in Class III, about 68 percent in Class VI and around 74 percent in Class IX scored less than 40 percent. This range of scores placed more than 50 percent of children below the passing mark category in all classes. The number of children falling below 40 percent marks progressively increased with higher classes. Only 10 percent of children in Class III, 8 percent in Class VI and around 9 percent in Class IX scored more than 60 percent which presented a grave situation in terms of learning levels of children.

Table VI: Distribution of Students by range of Scores in Mathematics

Score Range	Class						Total	
	IIIrd		VIIth		IXth			
	No	%	No	%	No	%	No	%
<30	96	35.6	122	55.7	146	56.8	364	48.8
30-40	51	18.9	27	12.3	45	17.5	123	16.5
40-50	53	19.6	33	15.1	34	13.2	120	16.1
50-60	43	15.9	19	8.7	12	4.7	74	9.9
60-70	22	8.1	8	3.7	7	2.7	37	5
70-80	4	1.5	5	2.3	7	2.7	16	2.1
80-90	-	-	3	1.4	4	1.6	7	0.9
>90	1	0.4	2	0.9	2	0.8	5	0.7
Total	270	100	219	100	257	100	746	100

Achievement Scores in Mathematics: Schools in Ludhiana

Educational status of children presented in earlier section indicated that the percent share of dropout and never enrolled children was high in Ludhiana. In addition, more number of children was enrolled in government schools as compared to Hyderabad. Given this background, it remained to be seen how the children already in the system fared in learning levels.

Table VII: Distribution of Students by range of Scores in Mathematics

Score Range	Class						Total	
	III		VII		IX			
	No	%	No	%	No	%	No	%
<30	128	35.8	191	86.8	35	31.5	354	51.4
30-40	206	57.5	29	13.2	28	25.2	263	38.2
40-50	4	1.1	-	-	20	18	24	3.5
50-60	3	0.8	-	-	15	13.5	18	2.6
60-70	8	2.2	-	-	6	5.4	14	2
70-80	7	2	-	-	3	2.7	10	1.5
80-90	2	0.6	-	-	4	3.6	6	0.9
Total	358	100	220	100	111	100	689	100

It was startling to note that in Class III, around 93 percent children scored less than 40 percent in mathematics, around 2 percent children scored in the range of 40-60 percent and just 4.2 percent of children scored in the range of 60- 80 percent (Table VII). To present a worse picture, the score range of class VII was dismal. In class VII, all the children scored less than 40 percent.

In Class IX, around 57 percent children scored less than 40 percent, around 32 percent children scored in the range of 40-60 percent and around 8 percent children scored in the range of 60-80 percent. There were around 3.6 percent children who scored in the range of 80-90 percent. The situation in class IX appeared to be better, perhaps because those who survived till Class IX were able to learn. Also, the cohort of children who appeared for the test in class IX might have included children from other feeder elementary schools, who did not study till elementary in the selected school sample.

Achievement Scores in Language: Schools in Hyderabad

With regard to language competency, around 32 percent children in Class III, 51 percent in Class VII and 71 percent in class IX scored less than 40 percent

(Table VIII). On the contrary, around 45 percent children of Class III scored more than 60 percent, 12 percent of children of Class VII scored more than 60 percent and 11 percent of children of Class IX scored more than 60 percent. This data also points towards a progressive decrease in learning levels in language among children studying in these three classes.

Table VIII: Distribution of Students by Range of Scores in Language

Score Range	Grade						Total	
	IIIrd		VIIth		IXth			
	Number	%	Number	%	Number	%	Number	%
<30	63	23.3	85	38.8	174	67.7	322	43.2
30-40	24	8.9	26	11.9	8	3.1	58	7.8
40-50	29	10.7	39	17.8	24	9.3	92	12.3
50-60	33	12.2	41	18.7	24	9.3	98	13.1
60-70	32	11.9	18	8.2	18	7	68	9.1
70-80	40	14.8	8	3.7	6	2.3	54	7.2
80-90	36	13.3	2	0.9	3	1.2	41	5.5
>90	13	4.8	-	-	-	-	13	1.7
Total	270	100	219	100	257	100	746	100

Achievement Scores in Language: Schools in Ludhiana

With regard to the language assessment, the data revealed that around 94 percent children of Class III scored less than 40 percent, almost the same figure as the number of scorers in this category in mathematics (Table IX). This could have been because of the medium of instruction that is Punjabi in these schools. As discussed earlier, Ludhiana was home to migrants from states such as Uttar Pradesh, Bihar and Rajasthan; hence they could have faced a severe language barrier. In Class VII, none of the children scored more than 40 percent. In Class IX, around 68 percent children scored less than 40 percent and 32 percent children scored in the range of 40-50 percent. Quite probable, the children picked up the language as they grew older and hence did fairly better in their learning assessment in Class IX.

Table IX: Distribution of Students by range of Scores in Language

Score Range	Class						Total	
	III		VII		IX			
	No	%	No	%	No	%	No	%
<30	159	44.4	151	68.6	29	26.1	339	49.2
30-40	176	49.2	69	31.4	46	41.4	291	42.2
40-50	5	1.4	-	-	36	32.4	41	6
50-60	11	3.1	-	-	-	-	11	1.6
60-70	7	2	-	-	-	-	7	1
Total	358	100	220	100	111	100	689	100

Figures in the above tables reveal that the learning assessment of children in slums was found to be much below the expected level in both the subjects in all the three Classes. However learning competencies were found to be better for children living in Hyderabad in comparison to those children living in Ludhiana.

Conclusion

The paper has amply demonstrated the change of place from rural to urban area creates series of hurdles in the path of education of a child particularly in coping up with demands of education and changing social set up. The findings of the study clearly demonstrate that the educational facilities are grossly inadequate especially for the children living in slums of Ludhiana as no school is available within two kilometers from the households and for reaching to the school the children have to cross a railway interjection or a busy road. However in Hyderabad the situation is much better. It was found that despite our tall claims and series of educational initiatives, all children belonging to poor households in the select slum areas, do not attend school and considerable proportion remains out of school either due to pull or push factors. Survey of the area and select household reveals that percentage of never enrolled and dropped out children is very high in Ludhiana. In Hyderabad also all the children are not attending school though the percentage of never enrolled and dropped out is comparatively lower than Ludhiana. The study also reveals that as the age of children increases the participation of children in school decreases. The data also showed that with the increase in educational attainment of the parents that is father as well as the mother, the participation of children in school increased and dropout rate decreased. Similar kind of impact was observed with regard to household income on the children's education. Further it also points out that dissatisfaction with performance of government schools in

providing education is an important driving force for the parents to send their children to private schools; though due to low income and poverty large proportion of children still attend government school. The findings have revealed that the challenge is not only improving access and participation but also the poor learning levels of children in slums. Therefore, not just education but quality of education needs to be equally prioritized so that the learning gap between the academically better placed and academically disadvantaged children are bridged and children with poor learning outcomes are given special care and protection so that they can improve upon their performance.

On the basis of analysis of data, the interpretation and discussion it can be safely concluded that despite enormous improvement in educational infrastructure and some important national initiatives, a lot has to be done especially in case of urban deprived children. This is more because of the social and economic division that exists between the urban rich and their poor counterparts. For this the that the state needs to further improve the accessibility in the slum areas, infrastructural facilities in the schools and school needs to be responsive and take additional responsibility to cater to the specific needs of the children living in slum areas.

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Organizational Climate of Primary Teacher Education Institutions in West Bengal

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Abstract

The present study was aimed to study the organizational climate of the primary teacher education institutions in West Bengal. The researcher has selected a random sampling method of the present study comprised of 200 (non-govt. 150 and govt. 50) Primary teacher educators out of 44 (33 non-govt. and 13 govt.) teacher education institutions. The tool used in this study was School Organizational Climate Description Questionnaire (Sharma, 1973) and its applicability in the PTEIs was tested by Kolmogorov Smirnov Two Sample Test. Result reveals that i) majority of the non-govt. PTEIs have close climate; ii) majority of the govt. PTEIs have open climate; iii) perfect agreement in open climate than others, iv) overall organizational climate of the PTEIs are mostly open climate in West Bengal.

Key Words: *Organizational Climate, Teacher Educators, Primary Teacher Education Institutions.*

Introduction

A number of external and internal forces act upon a teacher to influence his/her behaviour in implementing the educational policy of a nation. There is a dire need to identify the conditions necessary to influence the teachers in their working situation. Human interaction gives personal touch in the educational process. The human interaction that takes place plays an important role. As the institution is a web of interaction among teacher educators who live and work together in a particular way, this interactive environment of the institution leads to an organizational climate. As the teacher education institutions are social organizations, institutional climate depends not only on the principal and teacher educators as individuals, but also relationships between the principal and teacher educators;

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and their collective responsibilities with staff members. The teacher educators and their heads must share a relationship based on equality and mutual respect to create a better and positive organizational climate. The NPE (2016) emphasized that the key to improvement in quality of education is to have better qualified, better trained, better motivated and more accountable teachers.

Ghosh, M. and Guha, A. (2016) found that perception of male, self-financed and organizational climate of rural teacher educator's are better than female, govt. and urban teacher educators. Akhilesh (2013) suggest that better institutional climate in aided institutions. Babu, A. and Kumari, M (2013) found that there exists open climate in govt. schools whereas closed climate exists in private schools. Mehrotra (2002) shows that majority of govt. and private school has an autonomous climate. Whereas principals perceived it as open climate (Srivastava, 1985). From the review it has been found that though there is numerous research works on organizational climate of the schools, yet it is a fact that very little or no research has been done on teacher education institutions. So the problem, "To Study Organizational Climate of Primary Teacher Education Institutions in West Bengal" has been selected. This study is limited to the Primary teacher educators in West Bengal only. The main goal of the study to identify the different organizational climate of the PTEIs as perceived by their teacher educators.

Concept

The term Organizational Climate has been variously understood in many ways such as the feel 'the atmosphere', 'the environment', 'the zeal', 'the condition prevailing' and 'the tune of the institution'. Halpin (1963) viewed it as 'general flow of behavior and feeling within a group'. It has eight dimensions (Sharma, 1973). But of these eight, four dimensions are related to group behaviour characteristics (disengagement, alienation, spirit and intimacy) and other four are related to leader behaviour characteristics (psycho-physical hindrance, control, production emphasis and humanized thrust). Sharma (1973) using both the R-techniques and the Q-techniques identified six types of climate. These are open climate, autonomous climate, familiar climate, control climate and closed climate. Since organizational climate varies from institution to institution it has its varying effect on trainees, academic performance.



Figure 1: Conceptual Model of the Organizational Climate

Sample

Simple random sampling technique was adopted. Sample of the present study comprised of 200 (non-govt. 150 and govt. 50) teacher educators out of 44 (33 non-govt. and 13 govt.) Primary Teacher Education Institutions participated in the study.

Tool

The tool used in this study was School Organizational Climate Description Questionnaire (Sharma, 1973) and its applicability in the PTEIs was tested by Kolmogorov Smirnov Two Sample Test.

Statistical Techniques

For quantitative analysis of data, Mean, S D, Standard Score ($10Z+50$) and Percentage were applied.

Analysis and Interpretation

Preparing the Institutional Climate Profile

To prepare the climate profile for each institutions, each respondent's eight subtest score are calculated by the simple summation of each respondents, item score, subtest by subtest and dividing each of eight sum by the number of items in the corresponding subtest. Then the raw scores are converted into doubly standardized score first by normative standardized and then by ipsative procedures. Normatively, each subtest score is standardized across the total sample of institutions according

to the mean and S D of the total sample for that subtest. Ipsatively each subtest score is standardized with respect to the mean and SD of the profile score for each institutions. For both standardization procedures a Mean of 50 and SD of 10 is used. These eight standard score represent the institutions profiles.

Identification of Climate Types

To assign climate type to each institutions of the sample each of the profiles is compared with the six prototypic profiles and a profile similarity score is calculated for each institution. This score helps in determining to what extent each institution profile is congruent with the prototypic profile which characterized each of the six climates. Thus, similarity scores are computed by computing the absolute difference between each subtest score in a institution's profile and the corresponding score in the first prototypic profile, then in the second one and so on. A low sum indicates that the two profiles are highly similar whereas a large sum shows that the profiles are dissimilar. Thus each institution is designated with the name of prototypic profile to which the institution is highly similar. There identified six organizational climate namely, open climate, autonomous climate, familiar climate, controlled climate, paternal climate and closed climate. Hence, types of climate found in type of PTEI are shown in the following table:

Table 1: Distribution of Primary Teacher Education Institution according to Climate Types

Types of Climate	Non Govt. Primary Teacher Education Institution		Govt. Primary Teacher Education Institution		Overall	
	Number of Institutions	% of Institution	Number of Institution	% of Institution	No of Institutions	% of Institutions
Open Climate	3	9.68	10	76.92	13	29.55
Autonomous Climate	4	12.9	1	7.69	5	11.36
Familiar Climate	5	16.13	1	7.69	6	13.64
Controlled Climate	4	12.9	0	0	4	9.09
Paternal Climate	5	16.13	1	7.69	6	13.64
Closed Climate	10	32.26	0	0	10	22.73

Above table 1 depicts that 32.26 % non-govt. primary teacher education institutions of the sample were perceived by their teacher educators as having close climate .Open climate type institutions were found to be of least percentage (9.68%). Table depicts that 76.92% govt. primary teacher education institutions of the sample were perceived by their maximum teacher educators as having open climate but controlled and closed climate was not found in the govt. primary teacher education institutions. Again it depicts that overall 29.55 % institutions of this sample were perceived by their teacher educators as having open climate.

Description of Climate-wise Primary Teacher Education Institutions

To preparing a model profiles the author has calculated the average scores of each of the eight subtests under each climate type of teacher education institutions. Then Mean and SD of total subtest of each climate are calculated and score ranges of each climate are found on this basis. The average model profiles calculated by the present employee for six types of climates have been presented in below.

Table 2: Open Climate of the Primary Teacher Education Institution

Score Range	Category	Dimensions		Score	Diagrammatic Description
>58	High ($M+1\sigma$ above)*	Group Behaviour Characteristic	Disengagement	42	L
			Alienation	42	L
			Esprit	60	H
43-57	Moderate ($M\pm1\sigma$)*	Leader Behaviour Characteristic	Intimacy	57	M
			Psycho-Physical		
			Hindrance	46	M
<42	Low ($M-1\sigma$ below)*		Control	43	M
			Production	52	M
			Emphasis		
			Humanized Thrust	58	H

*Mean=49.97 and SD=7.12

The above table 2 shows that the open climate(N=13) in the primary teacher education institutions as perceived by their teacher educators that their

disengagement, alienation are low, then intimacy, psycho-physical hindrance, control and production emphasis are moderate but esprit and humanized thrust are high.

Table 3: Autonomous Climate of the Primary Teacher Education Institution

Score Range	Category	Dimensions		Score	Diagrammatic Description
>56	High (M+1σ above)*	Group Behaviour Characteristic	Disengagement	50	M
			Alienation	52	M
			Esprit	58	H
			Intimacy	46	M
45-55	Moderate (M±1σ)*	Leader Behaviour Characteristic	Psycho-Physical Hindrance	51	M
<44	Low (M-1σ below)*		Control	54	M
			Production Emphasis	43	L
			Humanized Thrust	44	L

*Mean=49.73 and SD=4.88

The above table 3 shows that the autonomous climate(N=5) in the primary teacher education institutions as perceived by their teacher educators that their production emphasis and humanized thrust are low ; then disengagement, alienation ,intimacy, psycho-physical hindrance , control are moderate but esprit is high.

Table 4: Familiar Climate of the Primary Teacher Education Institution

Score Range	Category	Dimensions		Score	Diagrammatic Description
>59	High ($M+1\sigma$ above)*	Group Behaviour Characteristic	Disengagement	39	L
			Alienation	55	M
			Esprit	49	M
			Intimacy	57	M
42-58	Moderate ($M\pm1\sigma$)*	Leader Behaviour Characteristic	Psycho-Physical Hindrance	37	L
			Control	55	M
<43	Low ($M-1\sigma$ below)*		Production Emphasis	51	M
			Humanized Thrust	59	H

* Mean=50.04 and SD=7.61

The above table 4 shows that the familiar climate(N=6) in the primary teacher education institutions as perceived by their teacher educators that their disengagement and psycho-physical hindrance are low ; then alienation esprit intimacy , control , production emphasis are moderate but humanized thrust is high.

Table 5: Controlled Climate of the Primary Teacher Education Institution

Score Range	Category	Dimensions		Score	Diagrammatic Description
>57	High ($M+1\sigma$ above)*	Group Behaviour Characteristic	Disengagement	53	M
			Alienation	53	M
			Esprit	49	M
			Intimacy	40	L
44-56	Moderate ($M\pm1\sigma$)*	Leader Behaviour Characteristic	Psycho-Physical Hindrance	46	M
			Control	61	H
<43	Low ($M-1\sigma$ below)*		Production Emphasis	54	M
			Humanized Thrust	44	M

*Mean=49.94 and SD=6.12

The above table 5 shows that the controlled climate(N=4) in the primary teacher education institutions as perceived by their teacher educators that their intimacy are low ; then disengagement , alienation esprit, psycho-physical hindrance , production emphasis and humanized thrust are moderate but control is high .

Table 6 : Paternal Climate of the Primary Teacher Education Institution

Score Range	Category	Dimensions		Score	Diagrammatic Description
>58	High (M+1σ above)*	Group Behaviour Characteristic	Disengagement	65	H
			Alienation	45	M
			Esprit	47	M
			Intimacy	51	M
42-57	Moderate (M±1σ)*	Leader Behaviour Characteristic	Psycho-Physical Hindrance	57	M
			Control	41	L
<41	Low (M-1σ below)*		Production Emphasis	41	L
			Humanized Thrust	50	M

*Mean=49.58 & SD=7.55

The above table 6 shows that the paternal climate(N=6) in the primary teacher education institutions as perceived by their teacher educators that their control are low, then alienation , esprit , intimacy, psycho-physical hindrance and humanized thrust are moderate but disengagement are high.

Table 7: Closed Climate of the Primary Teacher Education Institution

Score Range	Category	Dimensions		Score	Diagrammatic Description	
>59	High ($M+1\sigma$ above)*	Group Behaviour Characteristic	Disengagement	58	M	
			Alienation	57	M	
			Esprit	38	L	
			Intimacy	41	L	
42-58	Moderate ($M\pm 1\sigma$)*	Leader Behaviour Characteristic	Psycho-Physical Hindrance	60	H	
<41	Low ($M-1\sigma$ below)*		Control	54	M	
			Production Emphasis	50	M	
			Humanized Thrust	41	L	

*Mean=49.99 and SD=8.06

The above table 7 shows that the closed climate(N=10) in the primary teacher education institutions as perceived by their teacher educators that their esprit, intimacy and humanized thrust is low, then disengagement, alienation, control and production emphasis are moderate but psycho-physical hindrance is high.

Major Findings

Present study reveals that –

- i) Majority of the non-govt. PTEIs have close climate.
- ii) Majority of the govt. PTEIs have open climate.
- iii) Perfect agreement in open climate than others.
- iv) Control climate and closed climate was not found in the govt. PTEIs.
- v) Familiar climate and controlled climate does not differ on their openness (loading on 'Esprit').
- vi) The overall organizational climate of the PTEIs is mostly open climate in West Bengal.

Conclusion

Teacher education institutions are organizations set up achieving particular purposes. It has been established beyond doubt PTEIs are different from one another with respect to their organizational climates. The PTEIs in which the organizational climate is poor should improve and develop the same.

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Parental Background Characteristics Influencing Students Attitude towards Computer

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Abstract

Education as a means of imparting knowledge and skills to individuals and helping the process of social transformation involves the transfer of knowledge from one point to another. The development of Computer technology have become an integral part of instruction at all levels of education as it is a means to provide education more effectively to a large number of receivers at different places irrespective of distance between the source and receiver. The purpose of this study is to examine attitude of post graduate students towards computer and to investigate influence of several variables on their attitude. Overall, attitudes of Post Graduate students towards computers are positive and optimistic. This study shows that the students' attitudes towards computer are highly influenced by average level of parental educational but there is no significant difference by mother occupation and faculty of the students in their attitudes towards Computer. The difference has been observed on the basis of father occupation. The students, whose fathers have a higher occupational status, have high computer attitude score than other students.

Key Words: Computer Attitudes, Parental Education, Post Graduate, Faculty.

Introduction

Education as a means of imparting knowledge and skills to individuals and helping the process of social transformation involves the transfer of knowledge from one point to another. The development of Computers technology have become an integral part of instruction at all levels of education as it is a means to provide education more effectively to a large number of receivers at different places irrespective of distance between the source and receiver. Computer Technology affects every aspects of human life. It even influences the way we think and learn, has the capacity to bring about revolutionary changes in educational process. Using technology in education enables growing up individuals who are familiar with technology and who make use of it by improving the quality of education.

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Thanks to the rapid developments in technology, everyday some new devices are added to the ones that are already in use in the education-instruction process. The most important of these technological devices that are used at present is considered as computers (Akkoyunlu, 1998). There is no denying the fact that the world itself is becoming technologically based, from education to business. There is an enormous use of Information Communication Technology (ICT) in all spheres of human endeavour which is playing very significant roles in nations' development. The rapidly growing impact of ICT has brought about a revolutionary change in every facet of human life (Kamal, 2002). Therefore, we can say that Computer technology has the potential to significantly improve the teaching-learning process.

Attitude is one of the determining factors in predicting people's behaviour. That is to say by understanding an individual's attitude towards something, one can predict with high precision the individual's overall pattern of behavior to the object (Ajzen and Fishbein, 1977: as cited in Yushau, 2006). Attitude has been defined as "a learned predisposition to respond positively or negatively to a specific object, situation, institution, or person" (Aiken, 2000: as cited in Yushau, 2006). Therefore, attitude affects people in everything they do and in fact reflects what they are, and hence a determining factor of people's behaviour (Yushau, 2006). Computer attitude has been defined as a person's general evaluation or feeling of favour or antipathy toward computer technologies and specific computer related activities (Smith, Caputi and Rawstorne, 2000). Computer attitudes play a key role in influencing the extent to which students accept the computer as a learning tool and in determining the likelihood that computer will be used in the future for learning and study. Attitudes towards computers act as a key that affects students' seeing the computer as a learning tool and that determines the possibility of computers being used in the future for learning or study (Teo, 2008).

There is number of studies in India and abroad too which have been point out that computer

Attitudes are influenced by different variables. Examples from recent research include gender (Gupta, 1988; Sultana, 2001; Graff, 2003; Bebetos and Antoniou, 2009; Islam, 2016), computer training (Tsitouridou and Vryzas 2003), Religion (Sultana, 2001; Islam, 2016) knowledge about computers (Guler and Saglam, 2002; Derscheid, 2003; Yenice, 2003; Cepni, Tas and Kose, 2006), computer anxiety (Savenye, 1993; McInerney, McInerney and Sinclair, 1994; Mehra and Omidian, 2011), liking (Yildirim, 2000; Deniz, 2007) and computer experience (Sadik, 2006; Deniz, 2007).

It is a general notion that positive attitude towards computer has positive correlation with achievement and creative ability of the children. This shows the role of positive attitude towards Computer in improving performance to a great

extent. That's why, measurement of attitude towards Computer in relation to parental education, occupation and faculty of the students are necessary. So, the investigator undertook the present study.

Objectives

The study proposed to achieve the following objectives:

1. To compare the students attitude towards computer on the basis of parental educational background.
2. To assess the students attitude towards computer on the basis of parental occupational status.
3. To examine the attitude of different streams students towards computer.

Hypotheses

Following hypotheses were formulated to achieve the objectives:

1. Students attitude towards computer are not influenced by parental educational background.
2. Father's occupational status influences students' attitude towards computer. The students whose parents have high occupational status have favourable attitude.
3. There is no significant difference in the attitude between students of working and non-working mothers.
4. There is no significant difference in the attitudes of different streams (science, social science and arts) students towards Computer.

Methods

Sample Design:

The investigator employed the descriptive survey method for present study. Before collection of the data selection of faculties and departments was done on the basis of randomization technique. It was necessary to take permission in some departments from the chairperson. Then, students of a particular department were selected randomly. Students were encouraged to give correct information and were assured that these are to be used only for research purpose and will remain confidential.

In order to carry out the above mentioned study, the investigator had selected PG students from different departments of three streams i.e. arts, science, and social science of Aligarh Muslim University. The sample comprised of 200 PG students, out of which, 40 students from arts, 75 students from science and remaining 85 students from social science stream. Out of 200 students 40 students belonged to high educated fathers' group, 129 students belongs to medium educated fathers'

group and 31 students belongs to low educated fathers' group; 9 students belongs to high educated mothers group, 94 students belongs to medium educated mothers group and 97 students belongs to low educated mothers group. Out of the total sample 176 student's fathers had higher occupational status and remaining 22 students' fathers had low occupational status. Similarly, the students whose mothers were working, non-working and died were 31,165 and 4 respectively. Following Table-1 showed the description of sample distribution.

Table 1: Sample Selection

S.No.	Name of the Faculty	Name of the Department	Number of Students
1	Faculty of Science	Geography	15
		Geology	15
		Chemistry	15
		Physics	15
		Mathematics	15
2	Faculty of Social Science	Political Science	15
		Economics	15
		Education	30
		History	15
		Sociology	10
3	Faculty of Arts	English	15
		Urdu	15
		Hind	10

Data Source: Calculation Based on Primary Survey, 2013.

Instrument

The investigator used “**Computer Attitude Scale**” consisting 30 statements of Likert- Type representing attitude towards various aspects of computer. The range of scores of this tool extended from 30 to 150 with a mean value of 90. Responses were made on a 5-point scale and the response categories were assigned weights from 1 to 5. Positive items in the computer attitudes scale survey were assigned with numerical values ranging from 5 = Strongly agree, 4=Agree, 3=Undecided,

2=Disagree and 1= Strongly disagree. For negative statements the scoring was reversed. The summation of scores earned by a student was taken as an **Attitude scores**. The total scores indicate favourableness and unfavourableness of the attitude of the students towards computer. The higher the score, more favourable is the attitude towards computer and vice-versa.

Statistical Techniques Applied

The analysis of the data was done by using statistical techniques, which were chosen only after the investigator found them to be most appropriate and compatible for the collected data. They are as follows:

1. Mean (M)
2. Standard Deviation (SD)
3. Standard Error of the Mean (SEM)
4. t-test (to see the significance of the difference between two means)

When t-test is used for data analysis, the following assumptions were made:

- (i) The individuals were selected on the basis of random sampling from the normally distributed population.
- (ii) The sample consisted of different and independent sub-groups.

Value of t can be calculated as follows—

$$t = \frac{M_1 - M_2}{SED}$$

Where, M_1 = Mean of the first group

M_2 = Mean of the second group

SED = Standard Error of the difference between two independent means.

SED was calculated with the help of following formula—

$$SED = \sqrt{SEM_1 + SEM_2}$$

Where, SEM_1 = Standard Error of the first mean

SEM_2 = Standard Error of the second mean

For calculating SEM, the formula used was—

$$SEM = \frac{SD}{\sqrt{N}}$$

Where, SD = Standard Deviation

N = Number of students

After going through the above process, t-value was calculated by the following formula—

$$t = \frac{M_1 - M_2}{\sqrt{\left(SEM_1\right)^2 + \left(SEM_2\right)^2}}$$

In this study, the data have been critically analyzed and reported through textual discussion, tabular and graphic devices. The textual discussions have been used to point out generalizations and significant interpretations. The tables have been used to clarify significant relationships. They are so constructed that they are self-explanatory.

Result & Discussion

On the basis of their attitude scores, a total number of students was divided into three groups, i.e., positive, neutral and negative. The range of attitude scores defining neutral attitude was determined by adding ± 3 points (SEM) to 90. The students whose attitude scores were found above and below this range were considered as positive and negative respectively. Out of the total sample of the students who has positive, neutral and negative attitude towards computer are 95.5 per cent, 0.5 percent, and 4.0 per cent respectively. This result shows that majority of students have positive attitude towards the computer.

It is evident from the Table 2 that number of students of high, medium and low educated fathers are 40, 129, and 31 respectively. The Mean Attitude Score of high educated father was 91.90, SD=9.17 and Average Educated fathers was 95.80, SD=9.86. The calculated t-value between the Mean Attitude Score of students of high and average educated fathers was 2.01, which is significant at 0.05 levels with 169 df. The calculated t-value was 0.29 between the mean attitude scores of children of high and low educated fathers, which is not significant at 0.05 level with 69 df, and the t-value was 2.22 between the mean attitude scores of children of average and low educated fathers which is significant at 0.05 level with 158 df. It reveals that statistically there is significant difference in the Mean Attitude Score between the children of high and average; average and low educated fathers. But there is no significant difference in the Mean Attitude Score between the children of high and low educated fathers.

Table-2: Parental Educational Background wise Difference in Student's Attitude

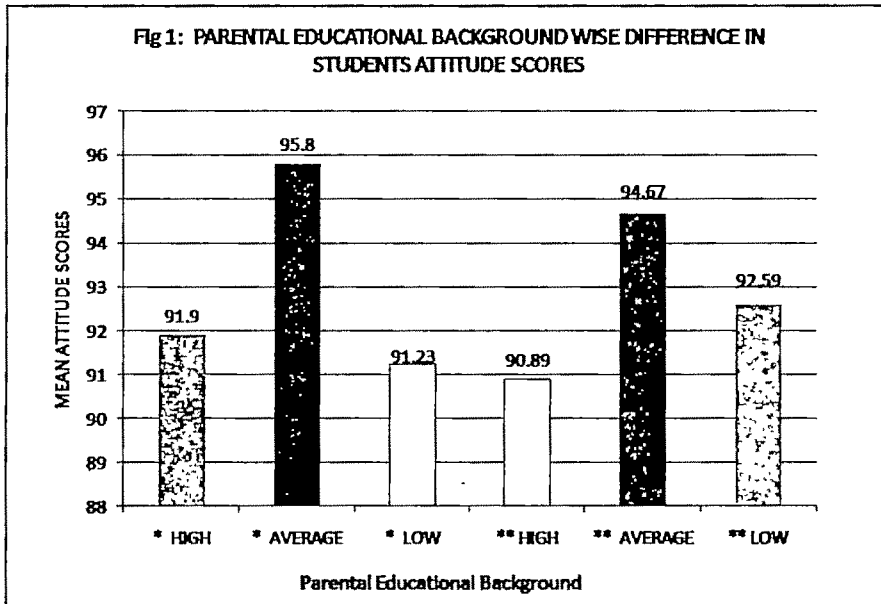
Education		No. of Students (N)	Mean Score (M)	SD	t-Value		
					High	Average	Low
Father	High	40	91.9	9.17			
	Average	129	95.8	10.65	2.01*		
	Low	31	91.23	9.86	0.29	2.22 **	
Mother	High	9	90.89	12.91			
	Average	94	94.67	11.19	2.71***		
	Low	97	92.59	9.01	0.56	0.79	

Data Source: Calculation Based on Primary Survey, 2013.

Note : * Sig. at 0.05 with df=167

** Sig. at 0.05 with df=158

*** Sig. at 0.01 with df= 101



Note: * Fathers Education, ** Mothers Education

Table 2 also shows that numbers of students of high, average and low educated mothers are 09, 94 and 97 respectively. The Mean Attitude Score of The Students

of Highly educated mothers was 90.89, SD=12.91; of Average educated mothers was 94.67, SD=11.19 and of low educated mothers was 92.59, SD=9.01. The calculated t- value was 2.71 between the mean attitude score of students of high and average educated mothers which is significant at 0.01 level with 101 df. The calculated t- value was 0.56 between the mean attitude score of students of high and low educated mothers, which is not significant at 0.05 level with 104 df; and the t-value was 0.79 between the Mean Attitude Score of students of average and low educated mothers, which is not significant at 0.05 level with 189 df. Statistically, it reveals that there is significant difference in the Mean Attitude Score between the students of high and average educated mothers but there is no significant difference in the mean attitude score between the students of high and low; and average and low educated mothers. Therefore, the first hypothesis stating that "Students attitude towards computer are not influenced by parental educational background", partially accepted.

In table 3, the relation between parental occupation and student computer attitude has been presented. Table presents the Mean Attitude Score of student whose fathers had high occupational status was 94.35 and SD=10.16. In case of student whose father had low occupational status was 89.68 and SD=11.09. The calculated t-value was 2.57 which is significant at 0.05 level with 196 df. The above result clearly indicates that there is significant difference between Mean Attitude Scores of student of high and low occupational fathers. Therefore the second hypothesis stating that, "Father occupational status influence students' attitude towards computer. The students whose parents have high occupational status have favourable attitude", accepted at 0.05 level.

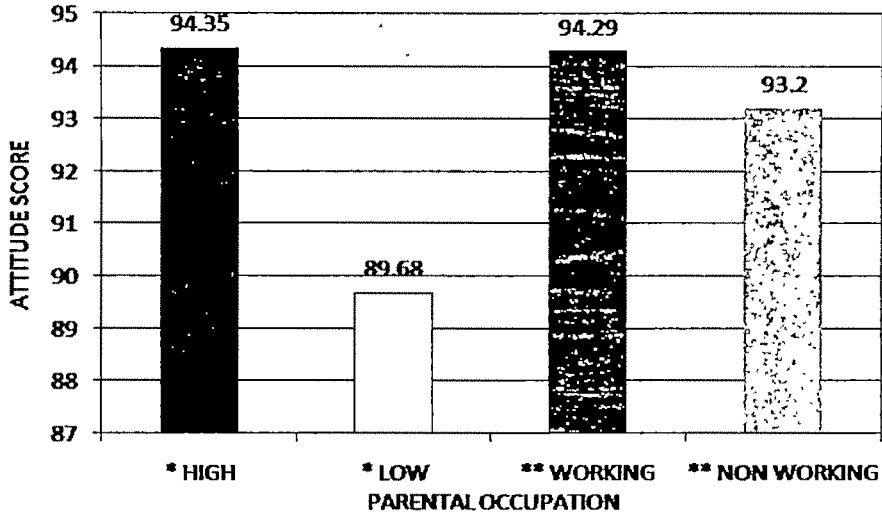
Table-3: Mean Attitude Scores of Student's on the basis of Parents Occupation

Occupation		No. of Students (N)	Mean Score (M)	SD	t-Value	Significant/Not Significant
Father	High	176	94.35	10.16	* 2.57	Sig. at 0.05
	Low	22	89.68	11.09		
Mother	Working	31	94.29	10.83	0.63	Not sig.
	Non working	165	93.2	10.14		

Data Source: Calculation Based on Primary Survey, 2013.

* Sig. at 0.05 with df =196

Fig 2: COMPARISON OF MEAN ATTITUDE SCORES ON THE BASIS OF PARENTAL OCCUPATION



Note: * Fathers Occupation

** Mothers Occupation

It is evident from table 3 that the Mean attitude score of working was 94.29 and $SD=10.83$. On the other hand in case of students of housewife mothers the Mean Attitude Score was 93.02 and $SD= 10.14$. The obtained t-value was 0.63 which was not significant at 0.05 levels with 194 df. So, the above result reveals that statistically there is no significant difference between students of working and non-working mothers. Thus, the third hypothesis stating that, "There is no significant difference in the Attitude between the students of working and non-working mothers towards computer", is accepted.

Table-4: Significance of the Difference among Mean Attitude Scores of Students of Different Faculties

Faculty	No. of Students (N)	Mean Score (M)	Sd	t-Value		
				Science	Social Science	Arts
Science	75	93.73	10.05			
So. Science	85	92.64	10.38	0.67		
Arts	40	92.5	10.55	0.61	0.07	

Data Source: Calculation Based of Primary Survey, 2013.

Table 4 indicates, the Mean Attitude Score of Science students was 97.73, SD=10.05, Social science students was 92.64, SD=10.38 and the arts students was 92.50, SD=10.55. The calculated t-value was 0.67 between the faculty of Science and Social science students which was found to be not significant at 0.05 levels. The calculated t-value was 0.61 between the Science and Arts faculty students, which was found to be not significant at 0.05 levels and the calculated t-value was 0.07 between the Social science and Arts faculty students, which was found to be not significant at 0.05 level. This result clearly indicates that there is no significant difference between the Mean Attitude Scores of Science, Social science and Arts faculty students. Therefore, the fourth hypothesis stating that, "There is no significance difference in the attitudes of different streams (science, social science and arts) students towards Computer", is accepted

In general postgraduate students expressed positive attitude towards computer. When the data were analyzed to see the relationship of mean attitude scores towards computer of students of high, average and low educated fathers, it is obtained that there is significant difference in the attitude towards computer of high and average and also average and low educated fathers. From the above result it is clear that the education of fathers influence the attitude of their children towards computer technology. It is supported by Ersoy (2009), he claimed that the Internet awareness of the students increase when their fathers have higher educational background.

When the data were analyzed to make the comparative study of the attitude towards computer of children of high, average and low educated mothers it was found that the children of average educated mothers have more favourable attitude towards computer than the children of high educated mothers. This result shows that education of mothers influence the attitude of their children towards computer. The reason may be that the average educated mothers thought that computer and internet are means of educational achievement and getting early employment that is why they allow and help their child to take admission in institute offering computer courses. They also permit their children to go to internet café for searching the websites and utilize other available facilities in the internet which leads their positive attitude towards computer. This fact is supported by Sharma (2006) who found that the parental education influences the attitude of their children towards information technology. Vekiri (2010), Vryzas and Tsitouridou (2002) also found that the educational backgrounds of the parents play important role in the use of the information technologies by their children.

With reference to the students fathers occupation, the students whose fathers were in high occupational categories have favourable attitude towards computer than other students it may be because of sound economic condition they avail computer and net facility at home and may also supply personal laptop to their children. From the above result it is clear that the occupation of the father influence the attitude of their children towards computer. Study conducted by Ersoy (2009), revealed that the participants, whose fathers were tradesmen, civil servant and labours have higher Internet awareness than that of other participants. Regarding students' mothers' occupation when data were analyzed to see the relationship it was observed that there was no significant difference in attitude towards computer of students whose mothers were working and non working mothers. From this result it is clear that students' mothers occupation does not influence in their attitude towards computer. The result obtained in this study is supported by Sultana (2001) and Sharma (2006) who found that students attitude towards computer technology was not influence by mothers' occupation. But this result was not supported by Ersoy (2009), as he found that Internet awareness of the participants whose mothers were housewife were higher than that of the participants whose mothers have different occupations.

The findings of the present study also revealed that there is no significant difference in students' attitude towards computer between any faculties (science, social science and arts). From his result it is clear that the faculties do not influence the attitude of their students towards computer technology. But Mehra and Omidian (2011) found that students who belonged to science were less anxious about computers than students belonging to Art faculty.

Conclusion and Suggestions

This paper is a preliminary analysis of the computer attitude data of PG students of AMU. By the findings of this study and the result of the earlier studies on this problem have been mostly conformed. Education of parents influences the attitude of their children towards computer. Children of average educated parents have more favourable attitude towards computer. Fathers' occupations influence the attitude of their children but occupation of mothers does not influence the attitude of their children towards computer. Further, the result shows faculties do not influence on students attitude towards computer. Attitude scores of three faculty students have almost similar.

For improving teaching learning process, performance and academic achievement of the students uses of information Technology need to be promoted

in Schools, Colleges, and University in every possible way. University should provide opportunities for postgraduates to purchase affordable software and hardware for use at home, and remote connectivity to the campus network for all students. Data on parental education and occupation, faculties were collected and will be reported on in future analysis. In the end it may be added that the generalization of the findings of the study is limited. It was conducted comparatively of very small sample selected from only few departments of AMU, Aligarh. A study with larger and more representative sample chosen from a wide region and with more rigorous design is likely to prove quite rewarding in shading more light on the attitude towards computer technology of postgraduate students.

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Paths to Linguistic Creativity of Adolescent School Girls in Kolkata

Jayanti Chakrabarty and Paromita Ghosh***

Abstract

The study aimed to trace causal pathways from features of home environment to linguistic creativity among adolescent girls as mediated by extents of their reflective, impulsive, vigorous and persistent temperament. Stratified random sample of 90 adolescent schoolgirls (aged 12 - 20 years) was selected from four schools of Kolkata. 30 each of the participants were aged between 12 and 14 years; 15 and 17 years; and 18 and 20 years respectively. They belonged to middle socio-economic status families as assessed by Socio Economic Status Scale (Meenakshi, 2004). Sentence construction subtest of Divergent Production Abilities (K.N. Sharma, 2011) was used to measure sentence construction ability – an aspect of linguistic creativity. Home Environment Inventory (Misra, 2003) was used for assessment of conformity, nurturance and permissiveness dimensions of participants' home environment. Dimensions of Temperament Scale (Chadha and Chandna, 2005) were used to measure respondents' reflective, impulsive, vigorous and persistent temperament. Data were collected from groups of about 15 to 20 individuals each at a time by administering abovementioned instruments. Path analysis revealed that linguistic creativity was prominent among early adolescent girls with permissive parents. Linguistic creativity evidently diminished with increasing age and perceived parental nurturance of girls.

Keywords: Causal pathway; linguistic creativity; home environment; temperament

Linguistic creativity tends to develop markedly across childhood and adolescence. It seems to accompany age-related progress in reflective thinking ability, vigour and diligence in task-performance and reduction in impulsivity (Belsky et al., 1991; Caselli, 2009; Kipper et al., 2010; Morgan et al., 1987; Owens, 1996; Schwartz et al., 1996; Smith et al., 2003; Steinberg et al., 2008; Welsh, 1975). However some

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researches suggest that certain aspects of creativity decline over childhood and adolescent years due to imposition of conformity by adults (Edmunds, 1990; Kim and Pierce, 2013; Roue, 2011). Creativity of any kind appears to be influenced by home environment especially in formative years. Parental demands for conformity may hamper creativity while their nurturance and permissiveness may foster creativity of children and adolescents (Hanson, 1997; Raw and Marjoribanks, 1991; R. Sharma, 2011; Welsh, 1975). Development of creativity is a goal of education but it is often sidelined by focus on rote learning and competition for excellent grades in examinations. Young persons with creative potentials are disadvantaged in such situations. Their creativity may wither away and they may feel bored, frustrated and misfit. Linguistic creativity is at greater risk of being neglected because science and technology seemingly promise lucrative careers. So scientific and technological creativity receive relatively more support particularly for boys. In a patrifocal society like India, creativity of girls is generally ignored. This is even in case of language and literature which society considers suitable for females. Families frequently allow daughters education in literature and humanities but their creative potentials are usually underestimated. Females are socialized to be conforming; their originality is discouraged (Hota, 2003; Kumar, 2008; Mukhopadhyay and Seymour, 1994; Pathak, 2012; Singh, 2008). Therefore it is necessary to identify girls with creativity in adolescence so that they may be nurtured. For devising modalities of nurturance, causal pathways from features of home environment to linguistic creativity among adolescent girls need to be charted. Prior research (e.g. Caselli, 2009; Kipper et al., 2010; Welsh, 1975) suggests that relevant temperamental variables of individuals may serve as mediators in these pathways. Such path analytic studies in the field of creativity are rare in India. So the present investigation attempts to fill the lacuna.

The following hypotheses emerged from the above survey of research literature:

- i) Linguistic creativity of adolescent girls can be predicted by their age, parental demands for conformity, parental nurturance and parental permissiveness as mediated by own reflective temperament.
- ii) Linguistic creativity of adolescent girls can be predicted by their age, parental demands for conformity, parental nurturance and parental permissiveness as mediated by own impulsive temperament.
- iii) Linguistic creativity of adolescent girls can be predicted by their age, parental demands for conformity, parental nurturance and parental permissiveness as mediated by own vigorous temperament.

- iv) Linguistic creativity of adolescent girls can be predicted by their age, parental demands for conformity, parental nurturance and parental permissiveness as mediated by own persistent temperament.

Method

Participants

A stratified random sample of 90 adolescent schoolgirls aged between 12 and 20 years was drawn from four schools of Kolkata. Two each of the schools were affiliates of the West Bengal Board of Higher Secondary Education and Council for the Indian School Certificate Examination respectively. 30 each of the participants were aged between 12 and 14 years; 15 and 17 years; and 18 and 20 years respectively. Only girls were included in the sample to control the extraneous variable of gender. All participants belonged to middle socio-economic status families as assessed by Socio Economic Status Scale (Meenakshi, 2004). This was done to control the extraneous variable of socio-economic status.

Operational Definitions of Variables

- i) Linguistic creativity: Creativity is the personal disposition of an individual to possess a collection of relatively enduring qualities that prepare him or her for creative thinking. Novel ideas (which may or may not lead to tangible products) are results of creative thinking. Creativity manifested through originality in language usage and literary output is known as linguistic creativity. Sentence construction is a facet of linguistic creativity. It assesses expressional fluency – ability to produce as many ideas as possible to logically fit a system or theories i.e. to produce a connected discourse (Guilford, 1964; K.N. Sharma, 2011).
- ii) Age: Chronological age of a person.
- iii) Conformity dimension of home environment: Extent to which the offspring is expected to comply with parents' directions, commands or orders (Misra, 2003).
- iv) Nurturance dimension of home environment: Extent of parental interest in and love for the offspring (Misra, 2003).
- v) Permissiveness dimension of home environment: Extent of opportunities provided by parents so that the offspring expresses his or her views freely and acts according to own desires without any interference (Misra, 2003).
- vi) Reflective temperament: Tendency to be deeply thoughtful and imaginative in preference to engaging in motor activities (Chadha and Chandna, 1999; 2005).

- vii) Impulsive temperament: Tendency to act upon new ideas quickly without much thought (Chadha and Chandna, 1999; 2005).
- viii) Vigorous temperament: Tendency to be energetic and to engage in activities requiring physical exertion on continuous basis (Chadha and Chandna, 1999; 2005).
- ix) Persistent temperament: Tendency of perseverance – to keep thinking about some subject and doing things according to plan inspite of obstacles until goal is reached (Chadha and Chandna, 1999; 2005).

Instruments

- i) Divergent Production Abilities (K.N. Sharma, 2011): It was used to assess sentence construction ability of linguistic creativity. The test consists of five other subtests. Sentence construction subtest has five items each asking for framing of as many meaningful four-word sentences as possible with initial letters of the words as given. This subtest has test-retest reliability of .84. Expressional fluency as assessed by this test correlated .63 with fluency dimension of Baqer Mehdi's Test of Creative Thinking (Verbal). This demonstrates adequate convergent validity of the present test. Percentile norms are based on 443 class IX students with mean age 13.80 years (K.N. Sharma, 2011).
- ii) Home Environment Inventory (Misra, 2003): It was used for assessment of select dimensions (viz. conformity, nurturance and permissiveness) of home environment of participants. The inventory which is suited for use with pupils of VIII to XII has 100 items pertaining to 10 dimensions of home environment. Responses are indicated on a five-point scale ranging from "mostly" to "never". Split-half reliabilities (corrected for length) of the dimensions are all significant and between .726 and .947. The inventory is claimed to have adequate content validity. Percentile norms are based on data from 113 students (54 boys; 59 girls) of intermediate classes (Misra, 2003).
- iii) Dimensions of Temperament Scale (Chadha and Chandna, 2005): It was used to assess some of the dimensions of temperament (viz. reflective, impulsive, vigorous and persistent) of participants. In all the scale measures 15 dimensions. It comprises 152 items with response-options being yes and no. Test-retest reliability of the scale was found to be .94. Split-half reliability for odd-even items was found to be .76 and for first-second halves was .79. Test-retest reliability coefficients of the dimensions ranged from .82 to .95. All reliability values were significant. Cross-validation yielded the coefficient

.81. Convergent validity coefficient between scores on the scale and those on Dimensions of Temperament by Thorndike is .73; $p < .01$. Percentile norms are based on 240 fifteen to eighteen years old boys and girls (Chadha and Chandna, 2005).

- iv) Socio Economic Status Scale (Meenakshi, 2004): It was used for assessing and controlling socio-economic status of participants. It consists of 71 items grouped into sections viz. education, profession, monthly income, financial assets, property, locality including durables and social status. The scale has a test-retest reliability of .82. As for validity, it could differentiate between students of public and government schools ($t=9.29$; $p < .01$) in socio-economic status. Norms are based on 1127 students of classes VII to XII (Meenakshi, 2004).

Procedure

Data were collected from small groups of about 15 to 20 individuals each at a time by administering the abovementioned instruments. Venues of data collection were schools.

Results and Discussion

Table 1: Descriptive Statistics (N=90)

Variables	Mean	Standard Deviation
Linguistic Creativity (Sentence Construction)	2.52	2.11
Conformity	24.98	9.99
Nurturance	21.93	7.05
Permissiveness	19.63	7.44
Reflective Temperament	6.10	1.96
Impulsive Temperament	3.13	1.27
Vigorous Temperament	7.37	2.67
Persistent Temperament	4.10	1.65

Table 1 shows moderate homogeneity of variance indicated by the standard deviation values. Next, path analyses were attempted with participants' age and dimensions of perceived home environment (viz. conformity, nurturance and permissiveness) as predictors in the first layer and linguistic creativity (sentence construction ability) as ultimate dependent variable. In the four path analyses (Figures 1 to 4) mediators differ. These mediators are extents of reflective, impulsive, vigorous and persistent temperament of participants.

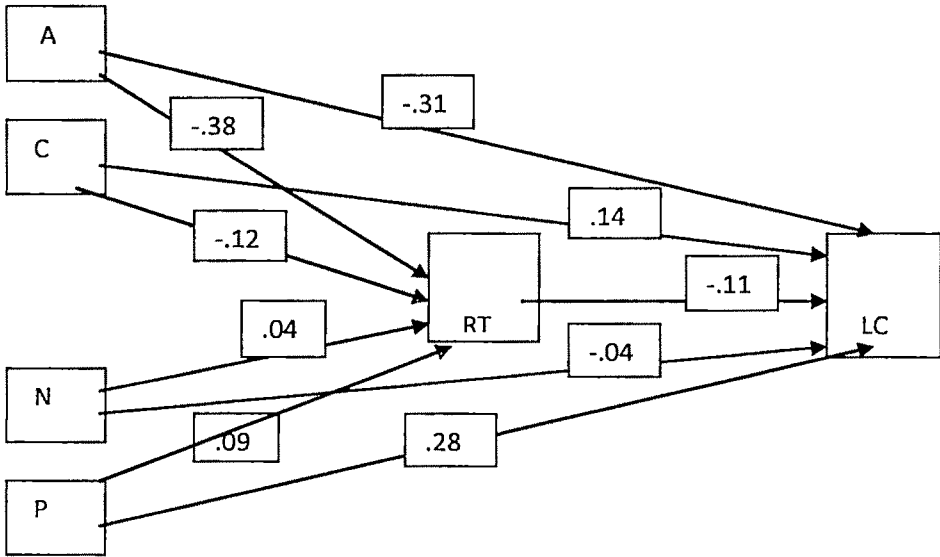


Figure 1: Causal pathways (bearing Beta values) to linguistic creativity via reflective temperament of participant schoolgirls [A: age; C: conformity; N: nurturance; P: permissiveness; RT: reflective temperament; LC: linguistic creativity]

From path analysis with reflective temperament of participants as intermediary it primarily emerged that reflective temperament could be significantly predicted ($F=4.34$; sig .003) by age of participants and their perceived parental demands for conformity, parental nurturance and permissiveness. R^2 (.17) indicated that 17% of variance in participants' reflective temperament could be explained by these predictors. Standardized regression (Beta) coefficient for age (-.38; sig .000) was greatest in magnitude suggesting that it was the leading predictor of reflective temperament of respondents; study of it's negative sign and coded categories indicated that reflective tendency reduced with increase in age of participants. This plausibly happened due to internalization of emphasis on rote memorization and examination performance during the course of education (Pathak, 2012). Next in magnitude was Beta coefficient for conformity (-.12; sig .274) indicating that parental demands for conformity somewhat lowered reflective temperament of sampled adolescent girls. This is because conformity suppresses individuality (Misra, 2003; Pathak, 2012). In the second layer of path analysis it was found that linguistic creativity of participants could be significantly predicted ($F=3.22$; sig .010) by age of participants and their perceived parental demands for conformity, parental nurturance and permissiveness mediated by their own reflective temperament. The 1st hypothesis is not entirely supported as reflective temperament emerged a weak mediator. R^2 (.16) indicated that 16% of variance in respondents' linguistic creativity could be explained by these predictors. Beta coefficient for age (-.31; sig .006) was highest indicating that it was the most potent predictor of linguistic

creativity of respondents; it's negative sign and coded categories suggested that linguistic creativity decreased with increase in age of participants. Reason for such a finding could be progressive conformity to adult mandates (Edmunds, 1990; Kim and Pierce, 2013; Roue, 2011). Next in magnitude was Beta coefficient for permissiveness (.28; sig .037) indicating that parental permissiveness fostered linguistic creativity of sampled adolescent girls. This is consonant with results reported by Hanson (1997) and R. Sharma (2011).

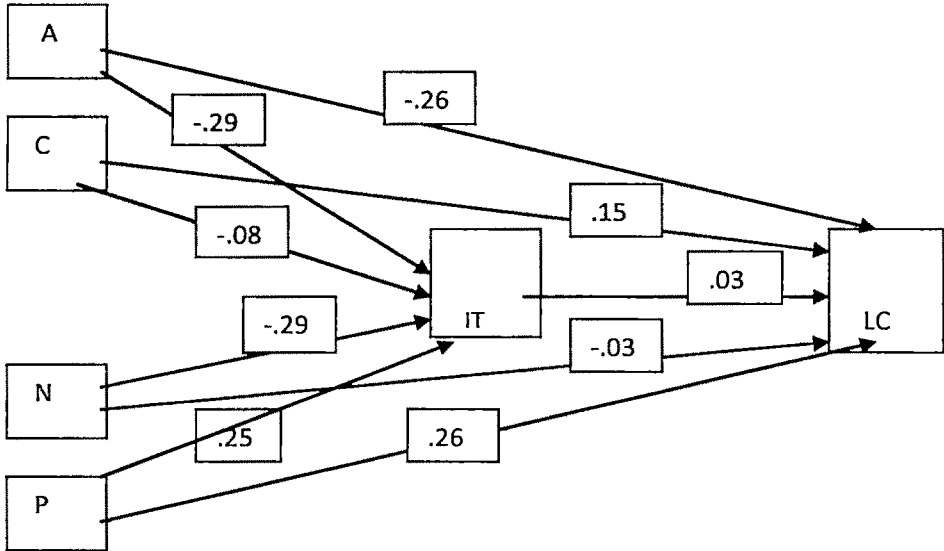


Figure 2: Causal pathways (bearing Beta values) to linguistic creativity via impulsive temperament of participant schoolgirls [A: age; C: conformity; N: nurturance; P: permissiveness; IT: impulsive temperament; LC: linguistic creativity]

Path analysis with impulsive temperament of participants as mediator firstly showed that impulsive temperament could be significantly predicted ($F=3.45$; sig.012) by age of participants and their perceived parental demands for conformity, parental nurturance and permissiveness. R^2 (.14) indicated that 14% of variance in participants' impulsive temperament could be accounted for by these predictors. Beta coefficients for age (-.29; sig .006) and nurturance (-.29; sig .032) were strongest suggesting that these were main predictors of impulsive temperament of respondents; negative signs on Beta values suggested that impulsive tendency declined with increase in age of participants and the parental nurturance they perceived. These findings overlie development – neurological, cognitive and socio-emotional including attachment with parents (Belsky et al., 1991; Schwartz et al., 1996; Steinberg et al., 2008). Next in magnitude was Beta coefficient for permissiveness (.25; sig .063) indicating that parental permissiveness enhanced impulsivity of sampled adolescent girls. This outcome is consonant with that of

Belsky et al. (1991). In the second layer of path analysis it was found that linguistic creativity of participants could be significantly predicted ($F=2.99$; sig.016) by age of participants and their perceived parental demands for conformity, parental nurturance and permissiveness mediated by their own impulsive temperament. The 2nd hypothesis is not supported as impulsive temperament emerged a feeble mediator. $R^2(.15)$ indicated that 15% of variance in respondents' linguistic creativity could be explained by these predictors. Permissiveness (Beta = .26; sig .056) emerged powerful predictor of linguistic creativity of respondents; parental permissiveness seemed to promote linguistic creativity of their daughters. This agrees with results reported by Hanson (1997) and R. Sharma (2011). Age of participants (Beta= -.26; sig .018) also strongly influenced their linguistic creativity; sampled adolescent girls' linguistic creativity diminished with rise in age. Explanation for such a result could be girls' socialized conformity to adult structuring (Edmunds, 1990; Kim and Pierce, 2013; Roue, 2011).

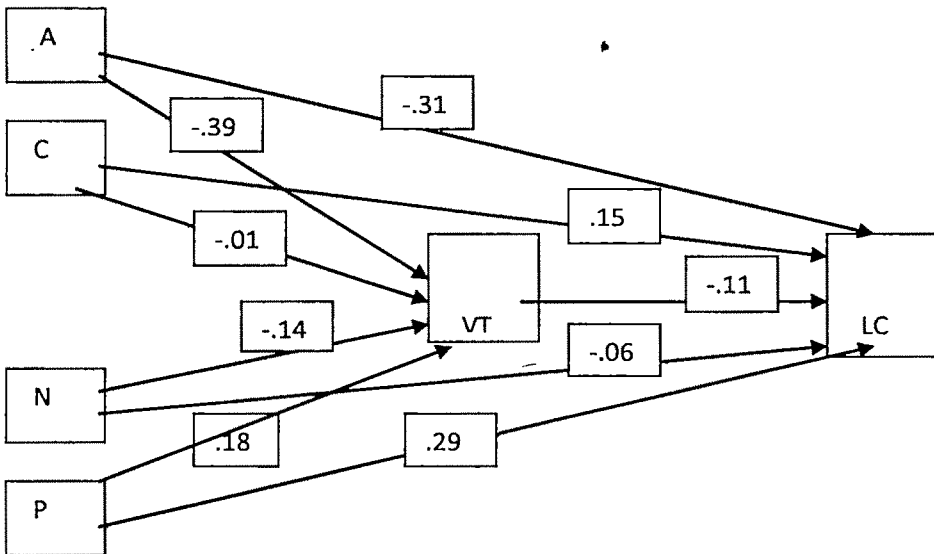


Figure 3: Causal pathways (bearing Beta values) to linguistic creativity via vigorous temperament of participant schoolgirls [A: age; C: conformity; N: nurturance; P: permissiveness; VT: vigorous temperament; LC: linguistic creativity]

Path analysis with vigorous temperament of participants as intermediary primarily demonstrated that vigorous temperament could be significantly predicted ($F=4.15$; sig.004) by age of participants and their perceived parental demands for conformity, parental nurturance and permissiveness. $R^2(.16)$ indicated that 16% of variance in participants' vigorous temperament could be explained by these predictors. Beta coefficient for age (-.39; sig .000) was highest in magnitude suggesting that it was the chief predictor of vigorous temperament of respondents; vigorous tendency

declined with increase in age of participants plausibly because motor activities become better organized with physical and cognitive development (Morgan et al., 1987; Smith et al., 2003). It was followed by permissiveness (.18; sig .165) indicating that parental permissiveness somewhat fostered vigorous temperament of sampled adolescent girls. It corroborates that in India girls' activities – vigorous or otherwise are controlled by parents (Hota, 2003; Kumar, 2008; Mukhopadhyay and Seymour, 1994; Pathak, 2012; Singh, 2008). In the second layer of path analysis it was found that linguistic creativity of participants could be significantly predicted ($F=3.22$; sig.010) by age of participants and their perceived parental demands for conformity, parental nurturance and permissiveness mediated by their own vigorous temperament. The 3rd hypothesis is not completely supported as vigorous temperament emerged a weak mediator. R^2 (.16) indicated that 16% of variance in respondents' linguistic creativity could be explained by these predictors. Beta coefficient for age (-.31; sig .006) was highest indicating that it was the strongest predictor of linguistic creativity of respondents; linguistic creativity decreased with increase in age of participants. Reason for such a finding could be adolescents' gradual internalization of standards set by adults (Edmunds, 1990; Kim and Pierce, 2013; Roue, 2011). Next in magnitude was Beta coefficient for permissiveness (.29; sig .033) indicating that parental permissiveness promoted linguistic creativity of sampled adolescent girls. This concurs with outcomes reported by Hanson (1997) and R. Sharma (2011).

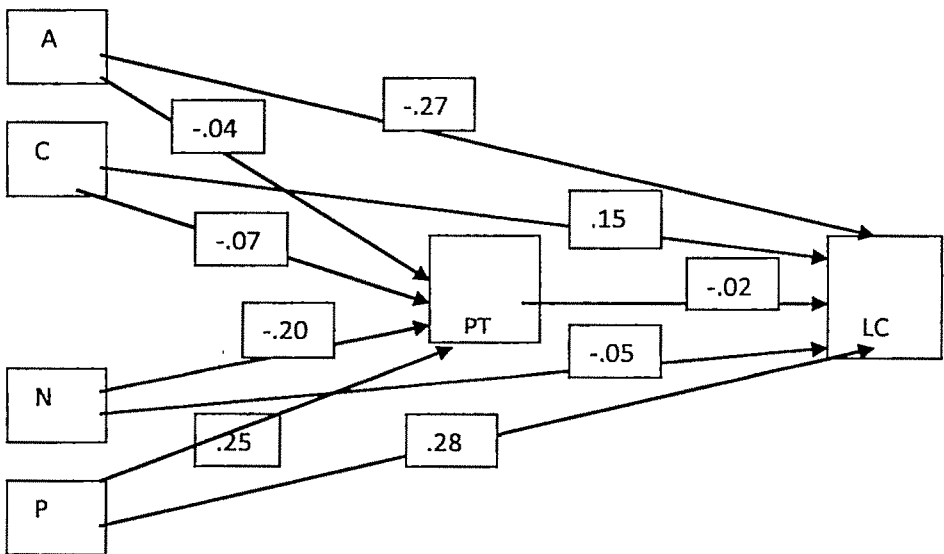


Figure 4: Causal pathways (bearing Beta values) to linguistic creativity via persistent temperament of participant schoolgirls [A: age; C: conformity; N: nurturance; P: permissiveness; PT: persistent temperament; LC: linguistic creativity]

From path analysis with persistent temperament of participants as mediator it initially emerged that persistence could not be significantly predicted ($F= .96$; sig.433) by age of participants and their perceived parental demands for conformity, parental nurturance and permissiveness. $R^2(.04)$ indicated that only 4% of variance in participants' persistent temperament could be explained by these predictors. Beta coefficient for permissiveness (.25; sig .075) was greatest in magnitude suggesting that it was the leading predictor of persistent temperament of respondents; persistence increased with greater parental permissiveness. It highlighted the determining role of parental attitudes in their daughters' activities (Hota, 2003; Kumar, 2008; Mukhopadhyay and Seymour, 1994; Pathak, 2012; Singh, 2008). Next in magnitude was nurturance (-.20; sig .151) indicating that parental nurturance of sampled adolescent girls to some extent lowered their persistence. This is because in contemporary India parental nurturance implies demands for conformity to parents' wishes disregarding youngsters' individuality; it is more so in case of girls (Kumar, 2008; Mukhopadhyay and Seymour, 1994; Pathak, 2012; Singh, 2008). In the second layer of path analysis it was found that linguistic creativity of participants could be significantly predicted ($F=2.99$; sig.016) by age of participants and their perceived parental demands for conformity, parental nurturance and permissiveness mediated by their own reflective temperament. The 4th hypothesis is not supported as persistent temperament emerged a feeble mediator. $R^2(.15)$ indicated that 15% of variance in respondents' linguistic creativity could be explained by these predictors. Permissiveness (Beta=.28; sig .044) was most powerful predictor of linguistic creativity of respondents; greater parental permissiveness enhanced linguistic creativity of sampled adolescent girls. This is congruent with results reported by Hanson (1997) and R. Sharma (2011). Participants' age (Beta= -.27; sig .011) also played important role; their linguistic creativity apparently diminished with increasing age. This finding could have been obtained due to adolescents' progressive conformity with adults' directives (Edmunds, 1990; Kim and Pierce, 2013; Roue, 2011).

Conclusion

Linguistic creativity appears pronounced among early adolescent girls with permissive parents. Parental tolerance for freedom of expression and action on the part of the ward needs to be boosted as it fosters linguistic creativity of teenage girls. The finding that linguistic creativity declines with girls' age is disturbing. It resonates with the outcome that perceived parental nurturance reduces linguistic creativity of girls. These findings suggest that parental involvement in lives of daughters becomes increasingly counterproductive as the latter grow up. Parental

moulding of their careers and lives robs daughters of independence and ingenuity. Schools can utilize parent-teacher meetings for encouraging parents to endorse autonomy and creativity among girls.

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Reflection on Teaching: A Study of Pre-service Elementary Teachers

Ms. Ishita Halder and Mousumi Boral***

Abstract

Education can be considered as the most vital asset in human society. Elementary education forms the very foundation for gaining basic knowledge. In India elementary education is the right of every child. Elementary education entails classes from I to VIII. Hence, the teacher trainees pursuing D. El. Ed. (Diploma in Elementary Education) or in other words, pre-service elementary teachers have an enormous responsibility on their shoulders to enable and empower the learners to become competent youths. Therefore, it is a necessity to know their perceptions on teaching, as teachers' reflection on classroom transaction not only helps in their professional growth but also at the same time facilitates the development of the entire education system. The present study seeks to discover pre-service elementary teachers' reflection on teaching process. Based on data tools including a General Information Schedule and an opinionnaire, the study comprises of 110 samples (D. El. Ed. Students) from different PTTIs (Primary Teacher Training Institutions) in and around Kolkata.

Key Words: Elementary Education, Pre-service Elementary Teachers, Reflection

Introduction

The Constitution of India contains six Fundamental Rights which are defined as basic that every Indian citizen has the right to enjoy. These Rights include– Right to Equality, Right to Freedom, Right against Exploitation, Right to Freedom of Religion, Cultural and Educational Rights, Right to Constitutional Remedies. According to **Right of Children to Free and Compulsory Education Act, 2009** (it comes under Right to Freedom), 'every child of the age of 6 to 14 years shall have a right to free and compulsory education in a neighbourhood school till completion of elementary education'. In accordance to this act, class I to class

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VIII are included under the category of elementary education. D. El. Ed. (Diploma in Elementary Education) is a 'Teacher Education' course which is offered for professional development of the pre-service and in-service primary (Class I-IV) and upper-primary (V-VIII) teachers. Hence, the students (pre-service teacher trainees) pursuing this course can also be termed as '**Elementary Teachers**'.

The term 'Reflection' is defined by in different dimension by educational researchers. It is believed that through reflection, teachers, continuously reframe their experiences, examine their beliefs, attitudes and behaviour and thus, continuously grow as a teacher as well as a humane social being. Mere training cannot enable the teacher-trainees to develop probing, enquiring and challenging attitude about themselves. It is known that acquiring only the professional qualification is not enough; teachers should always thrive for betterment and excellence. Reflective nature not only helps to improve teaching but also helps to develop an insight and decision-making ability. According to **NCFTE (2010)**, teachers (both pre-service and in-service) need to reflect on their own experiences and assumptions as both are part of the course and classroom enquiry.

Objectives of this Study

The present study is made to know the pre-service elementary teachers' views on –

- Teacher's role as a facilitator, motivator, supervisor and friend in inculcating values, stimulating awareness, nurturing creativity and augmenting self-discovery among the students;
- Teacher's reflection on learners' thinking skill and performance based on evaluation; and
- Teacher's reflection on their self-teaching and aptitude for learning.

Materials and Methods

Over the years there have been a considerable number of researches devoted to the area of teacher's reflection. Although there are different ideas regarding reflection, generally there is no contradiction on the importance of actively and carefully examining one's thoughts so as to improve one's teaching (**Freese, 1999**). There are a number of studies discerning actual classroom practices that effect students' attitudes and beliefs. Being a teacher is not only a matter of being seen as a teacher by himself or herself but also by others; it is a matter of acquiring and redefining an identity that is socially legitimated (**Coldron and Smith, 1999**). Here comes the importance of teachers' reflective nature. A teacher should always reflect about himself or herself. This is the best way of professional development

as well as development as a human being. It is assumed that through reflection, teachers consciously and creatively participate in their own growth and development (Schon, 1987). Zeichner (1996) believed that reflection is an essential component to understand the complex nature of classrooms. Munby and Russell (1990) ascertained that, through reflective practice, teachers reframe and reinterpret their experiences and understanding from different perspectives. Skinner and Belmont (1993) found that teacher's involvement with students had most powerful impact on students' engagement in learning activities. Traditional teaching focused on imparting knowledge and skill only, but educators should stress the need for the learners to become creative problem-solver (Baylor and Ritchie, 2002). There are a number of case- studies about personal professional knowledge (Elbaz 1983 as cited by Coldron and Smith, 1999) and of professional development (Louden 1991 as cited by Coldron and Smith, 1999) and about attempts to characterize teaching as moral or creative (Olson 1992, Woods and Jeffrey 1996 as cited by Coldron and Smith, 1999). Teaching is an activity that continually entails moral judgments (Coldron and Smith, 1999). Because each teacher has to evaluate what she or he is asked to do and what she or he is doing. Despite the external influences (central government, state government, school authority etc.) many choices are exercised in the classroom by the teacher only and those choices have moral dimensions (Coldron and Smith, 1999).

Samples

For the concerned research study, Primary Teachers' Teaching Institutes (PTTIs or D. El. Ed institutes) have been selected purposively (Purposive Sampling) from in and around Kolkata and the respondents (D. El. Ed. Students) have been chosen randomly. The total number of sample is 110 comprising students between 18 to 25 years of age. The mean age of the sample is 21.34 years. The D. El. Ed students of varied socio-cultural and economic conditions represents different districts of West Bengal.

Tools

A *General Information Schedule* for collecting demographic characteristics (e.g. age, residence, literacy etc.). (b) An *opinionnaire* of 5 point scale including 8 items was prepared and administered to collect information regarding Pre-service Elementary Teachers' (D. El. Ed students) reflection on teaching.

Data Collection and Data Analysis

The data was collected from the subjects in girls' institutions only and in the months of March-April, 2017 and the analyses are carried out with Microsoft excel.

Definition of Operational Terms

- (a) **Elementary Education:** Elementary education can be defined as a period of formal education. It generally encompasses class I to VIII. According to Right of Children to Free and Compulsory Education Act (2009), “elementary education means the education from first class to eighth class”.
- (b) **Pre-service Elementary Teachers:** The students or teacher-trainees pursuing D. El. Ed. (Diploma in Elementary Education) prior of entering teaching profession are termed as Pre-service Elementary Teachers.
- (c) **Reflection:** John Dewey defined reflection as “turning a subject over in the mind and giving it serious and consecutive consideration”, thereby enabling us “to act in a deliberate and intentional fashion” (Dewey, 1933). Reflection is a process of self-examination and self-evaluation.

Results and Discussion

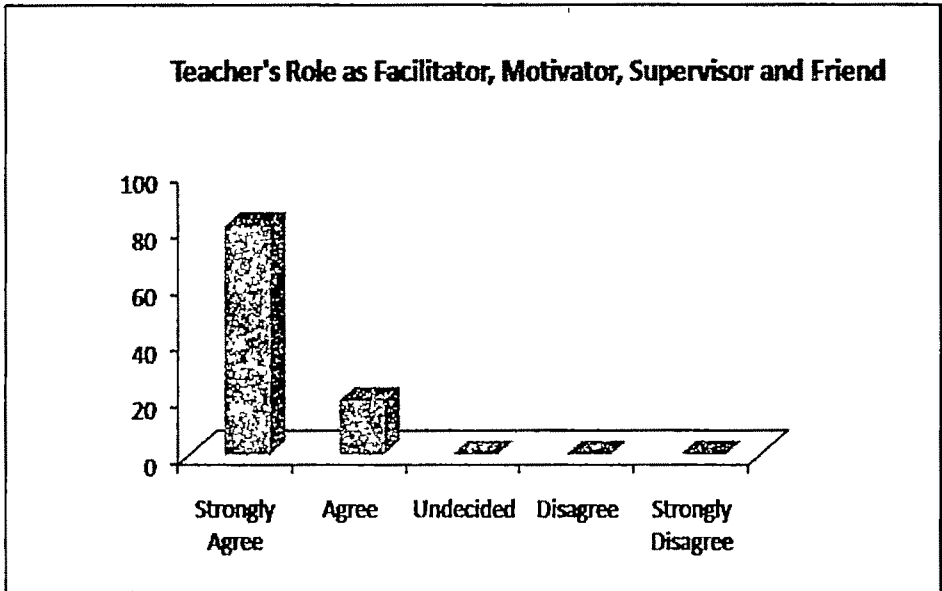
The results focused on Pre-service Elementary Teachers’ reflection on teaching are:

1. Teacher’s Role as a Facilitator, Motivator, Supervisor and Friend

From the perspective of educational research a ‘facilitator’ is a person who helps another person or organization in doing something more easily and effectively. When a teacher plays the role of a facilitator, the learners can learn through self-discovery. A ‘motivator’ can be termed as a person who makes someone enthusiastic about doing something. Teachers should always adopt innovative methods to motivate the students to learn. ‘Supervisor’ is a person who is in charge of overseeing and directing a project or people. Here, the teachers supervise the teaching-learning process. A ‘friend’ is a favoured companion with whom one has a bond of mutual affection. If a teacher imbibes the role of a friend, learning will no longer be a task but a pleasure.

Educators and parents value motivation in school not only for better performance but also for its long term contribution to children’s learning and self-esteem (Skinner and Belmont, 1993). Educational researches have established that teachers’ behavior is very effective in student motivation (Skinner and Belmont, 1993). Attributional theorists have focused on teachers’ behaviours that lead children make conclusions about their efforts and abilities (Good and Tom, 1985 as cited by Skinner and Belmont, 1993). Every aspect of a teacher’s work like the very presence of his or her, the way he or she interacts with the children, his or her aptitude for learning etc. have immense impact on the children.

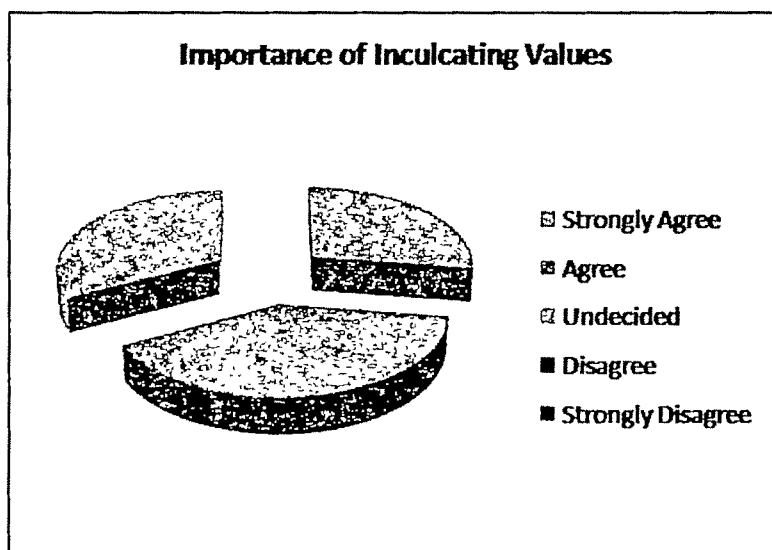
From the total 110 respondents, most of them strongly agreed (80.91%) and agreed (19.09%) about the importance of the role of a teacher as a facilitator, motivator, supervisor and friend. Hence, it can be emphasised that the pre-service elementary teachers assume learning as an effort which needs the teacher to play the roles of a facilitator, motivator, supervisor and friend so that learning becomes a joyful experience to the learners. Here, the results have been shown graphically--



2. Importance on Inculcating Values

Values are the determinants of our opinions, attitudes, behaviour. We make decisions in life and about life based on our values. According to **National Policy on Education (NPE-2016)**, the complexity of today's world has resulted in erosion of moral values which is adversely affecting human life. It is manifested in alarming levels of exploitation of human beings and also of the nature. Henceforth, NPE-2016 asserted the importance of inculcating values among the students from the early years whether formally or informally.

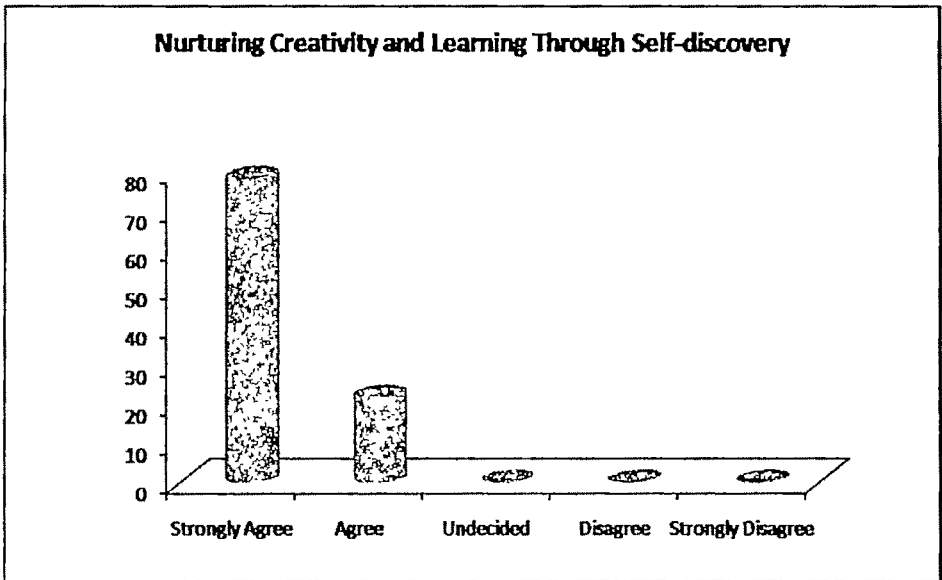
Among the 110 pre-service elementary teachers, about 27.27% respondents strongly agreed and 40% agreed about the importance of inculcating values over knowledge. Nearly 32.73% respondents were undecided about it which indeed exhibits that the teachers are themselves uncertain about the value-creation and believes in inert existence.



3. Nurturing Creativity and Learning Through Self-Discovery

The seeds of creativity live in everyone. A teacher can cultivate creativity among the learners by allowing them 'to think out of the box'. Various research studies have concluded that for nurturing creativity, teachers should have an open attitude towards new ideas, they should be flexible (Chen, 2008; Craft, 2005, 2007 as cited by Lin, 2011). Nurturing creativity requires motivation, openness to new ideas, tolerance for ambiguity, positive attitude and acceptance on the teacher's part. Thus, nurturing creativity itself leads to learning through self-discovery. Self-discovery learning refers to learning by independent learners who set up their own learning goals. In traditional classroom setting, self-discovery learning is ignored. Here, the students are heaped with information which can amount to 'huge academic load' for them. Here, learning is transmitted through books, lectures etc. but not real world experiences. On the other hand, learning through self-discovery liberates them from the burden of mere information and rote learning.

The pre-service elementary teachers provided their valuable views about nurturing creativity, learning through self-discovery among the learners. Of all the respondents, about 78.18% strongly agreed and the rest i.e. 21.82% agreed on this view. It is a matter of question why such a large percentage of teachers did not feel the essence of nurturing creativity. Perhaps these trainee-teachers are themselves not very aware of the fact that creativity can be cultivated through proper guidance and nurturance from the early years or they themselves have not been exposed to such gamut of practices.



4. Teacher's Role on Students' Awareness and Thoughtfulness

Nature or environment is the cause of our existence. But In the present millennium, environmental degradation has become a matter of grave concern for the mankind. Most of these are anthropogenic in nature and therefore, be corrected by our attitudinal and behavioural change towards environmental issues. As students are the future of our society, it is a teacher's prime duty to make them aware of the resources of the biodiversity.

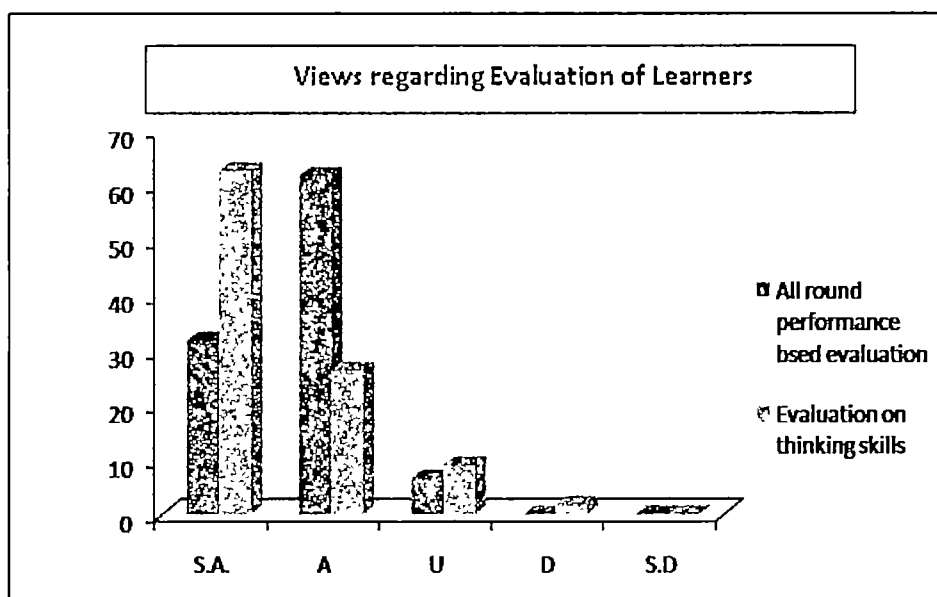
Pre-service elementary teachers offered their opinion regarding the views for encouraging the learners to be aware and thoughtful about diverse environmental issues. Most of them i.e. 78.18% strongly agreed and the rest (21.89%) agreed that teachers play crucial role about students' awareness and thoughtfulness. Therefore it is commendable that the trainee-teachers have concerns of eco-thinking among themselves and to do benefit for the community.

5. Views regarding Evaluation

Evaluation is a process which critically examines the teaching-learning process and helps to determine the learners' growth, their need, effectiveness of the teaching-learning process etc. Hence, without it one cannot know the usefulness of a particular curriculum or teaching strategy. Generally, evaluation is based on the syllabi which can be termed as explicit curriculum. There are many other factors like discipline, punctuality, attendance etc. Implicit Curriculum which should also be considered while evaluating individual learners. Here, the pre-service

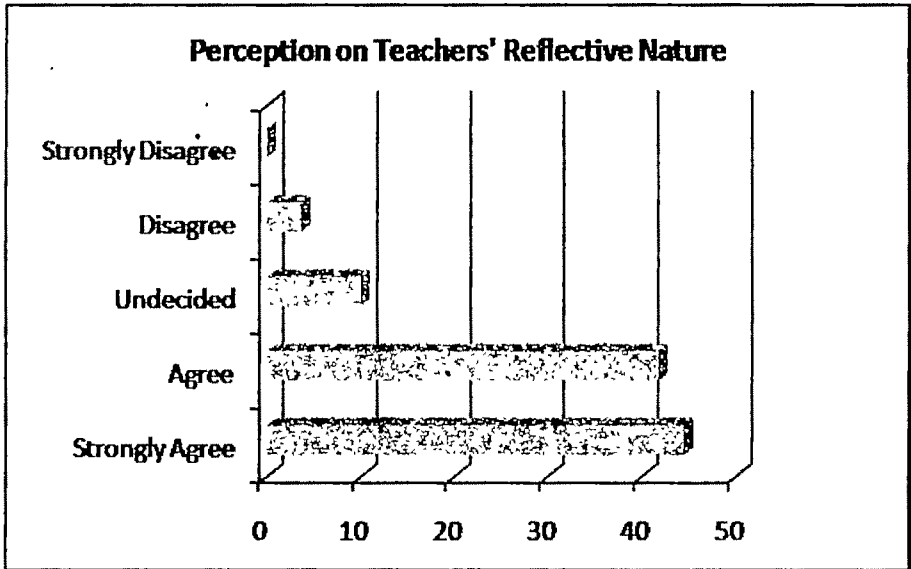
elementary teachers have offered their views on evaluation. While, 31.82% respondents strongly supported the view of evaluation of all-round performance, 61.82% just supported and 6.64% remained undecided about the procedure.

In traditional examination system, the students' ability of learning by rote was evaluated and not on their thinking skill or creative traits. In fact, National Curriculum Framework for Teacher Education (NCFTE, 2010) defined teacher as one, who needs to 'discourage rote learning'. The view regarding thinking skill- based evaluation was supported by 26.63% teachers and it was strongly supported by 62.73% pre-service elementary teachers and 1.82% respondents remain undecided about the matter.



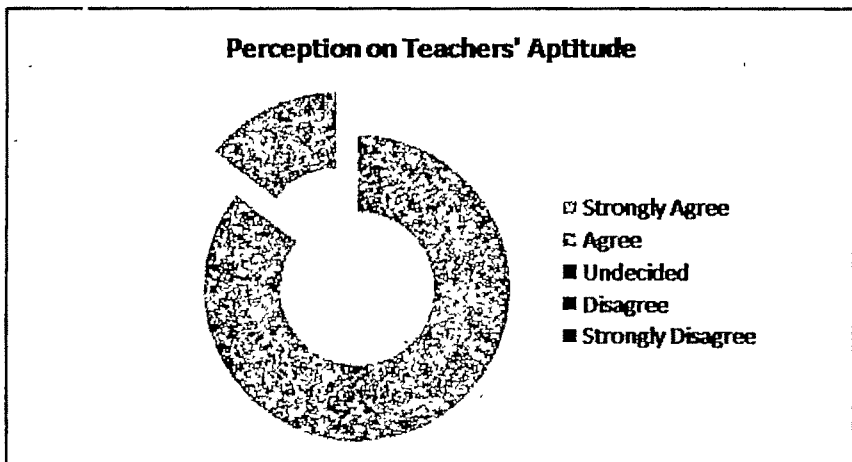
6. Perception on Teacher's Reflective Nature

A country's success depends on the quality and the success of the persons coming out of its schools and colleges (Kothari Commission, 1964). Hence, teachers can be termed as the 'shapers' of our future. According to John Dewey, a reflective teacher is the one who persistently questions his or her aims and actions, monitors own practices and outcomes and considers the effects upon each and every child (Moallem, 1997). Henceforth, to be an effective teacher he/she should be reflective in nature. Teachers should reflect on their teaching strategies, their way of involvement with the learners, the influence of their behaviour on the learners' mind. While 44.54% pre-service elementary teachers strongly agreed to the viewpoint and 41.82% simply agreed to it, remaining 10% were undecided and 3.64% disagreed.



7. Perception on Teacher's Aptitude for Learning

An aptitude is the natural ability to learn or to develop proficiency in a specific area. Not only the learners, but also the teacher should have an aptitude to learn. The teachers also require exposure to new ideas and skills (Baylor and Ritchie, 2002). With each passing day, our world is advancing with new inventions in technology, propagation of new theories and exploration of new truths. Hence, teachers shouldn't be satisfied with their acquired knowledge and skills. They should have an aptitude to know about the contemporary developments. But in-service teachers, sometimes, show negligence/apathy in adopting new technologies. Such mentalities shun the scope of their professional growth and their life-long learning process. Here, 85.45% respondents strongly agreed and remaining 14.55% agreed that teachers should have an aptitude for learning.



Conclusions

Through the present curriculum, pre-service elementary teachers only learn about 'what to do' and 'how to do' in the classroom. But mechanically knowing only how to teach is not enough as it does not pave the way to excel in classroom teaching and develop learners as a creator and thinker. A reflective teacher should ask himself or herself about 'why he or she is doing this', 'how he or she can meet better the needs of the learners', and 'how he or she can encourage full involvement of the learners' etc.

Although the study does not make claims beyond providing personal views of the pre-service teachers' about their reflection on teaching but it does raise the issue of significance of reflection for the pre-service teachers. The study highlights the roles of a teacher and also to imbibe the art and science of teaching. Through this study, we can conclude that the elementary teacher-trainees are exposed to reflection and have a clear image in their mind about what kind of teacher they ought to be. They have total clarity regarding their future roles which they presumably don't want to demarcate within the periphery of the 'fixed' syllabi. They are optimistic to have constructive ideas not only about teaching but also about classroom and outside-classroom learning.

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Self-Concept of Children Belonging to Joint Family and Nuclear Family and Its Relationship With Their Academic Achievement

Prosenjit Dutta and Shyamal Uday Chowdhury***

Abstract

In the present study an attempt was made to examine the extent of self-Concept of the students' family wise and the significance of mean differences between joint family children and nuclear family children and also to examine relationship between Self-Concept and achievement of the students. A sample of 600 students of class IX comprising both joint family and nuclear family children was selected. Self-Concept Questionnaire developed and standardised by Dr. Raj Kumar Saraswat and adapted in Bengali by the researcher (Test reliability value $r = 0.66$ and satisfactory content validity) was used. The important finding was that there was significant correlation between the Self-Concept and Academic Achievement of the students.

Key Word: Self-Concept, Academic Achievement, Joint Family and Nuclear Family.

Introduction

An individual's assessment of his or her status on a single trait or on many human dimensions using societal or personal norms as criteria is called self-concept. It is this positive state that will help to adequately manage and overcome any life storms you experience. Several studies on self-concept are conducted in India and abroad. However, only a few studies on effect of social strata on self-concept among the students have been found in India, particularly among the rural area students who are core groups for development in Indian society. It is important that education plays a vital role for the overall societal development that includes the development of self-concept among the students. Therefore, it becomes important to study the level of self-concept among the children belonging to nuclear and joint family system and its effect on educational development. Though it's not an easy task to

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have the exact measurement of such abstract qualities like self-concept of the children, reflected specially in their academic field. There are a number of factors that influence a student in facing an examination. But a student's thought and attitude to different aspect of life is nowhere expressed more prominently than their examination. So it's not that the examination does not reflect their self-concept, the fact is that the process of measuring the level of those is difficult and this study is to solve this difficulty and to in still a convincing conclusion.

Many research work has been incorporated in this aspect —

Shukla, S. K. And Agrawal, A. (1997) carried out a study to examine the socio-economic status, intelligence, occupational aspiration, self-concept and academic achievement of schedule caste and non-schedule caste's students. It was observed that the level of academic achievement of schedule caste students was lower as compared to non-schedule caste students.

Perveen, Nuzhat (1999) attempted to reveal the relationship of mother aspiration, involvement level with the scholastic achievement of their children with special reference to the educational status of the mothers. It was found that mother was found highly aspiring for the academic career of their children but results could not exhibit much close affinity between the educational status of mothers and the scholastic achievement of their children.

T. Kalyani Devi and P.R. Anitha (2002) attempted to find out the self-concept of adolescents in single parent and intact families and also to examine the grade and sex differences on self-concept of adolescents. The important results of the study revealed that adolescents of intact family had high self-concept in some dimensions and the single parent adolescents had high self-concept in other dimensions of the self-concept.

Naskar, P. K and Chowdhury, S. U. (2007) conducted a study and showed that high Self-Concept group in English learning was significantly superior in the achievement in english to those belonging to low Self-concept group.

Jagpreet Kaur, J. S. Rana and Rupinder Kaur (2009) made a similar study and found that Self-Concept is positively correlated with academic achievement.

A Kumari, S Chamundeswari (2013) made a study on Self-Concept and Academic Achievement of Students at the Higher Secondary Level.

The researcher wants to highlight Self-Concept of Joint family children and Nuclear family children. Hence the present study entitled " Self-Concept of Children Belonging to Joint Family and Nuclear Family and its Relationship with their Academic Achievement."

Objectives of the Study

O₁ : To appraise the extent of Self-Concept of the students selected.

O_2 : To find out the significance of differences (Family Type) if any in the Self-Concept of students.

O_3 : To find out the relation between Self-Concept and Academic Achievement of the students.

Hypotheses

H_0 1 : There would be no significant difference in mean scores in Self-Concept between Joint family children and Nuclear family children.

H_0 2 : There would be no significant difference in mean scores in Self-Concept between Joint family boys and Joint family girls.

H_0 3 : There would be no significant difference in mean scores in Self-Concept between Nuclear family boys and Nuclear family girls.

H_0 4 : There would be no significant correlation between Self-concept and Academic Achievement of the children both joint family and nuclear family.

Methodology

Sample

Six hundred students of class IX of which 300 students (150 boys and 150 girls) and 300 students (150 boys and 150 girls) were selected from Joint family and Nuclear family respectively from eighteen schools in the district of Howrah, North-24 Parganas and South-24 Parganas. Hence the purposive sampling technique was used.

Tools Used

Following tool was used to collect the data for the study – Self-Concept Questionnaire:

The researcher intended to adapt Self-Concept Questionnaire developed by Dr. Raj Kumar Saraswat and presented this Bengali adapted form of the question booklet comprising forty eight items of the six separate dimensions of Self-Concept, viz., Physical, Social, Intellectual, Moral, Educational and Temperamental Self-Concept.

The statements of the items were of both positive and negative. In case of positive statements each carried a weightage of +1 to +5 and vice-versa in case of negative statement. The Test-retest reliability of the test was 0.66 and the content validity was found to be satisfactory.

Data Collection

The researcher collected data by visiting the eighteen schools from the districts of Howrah, North-24 Parganas and South-24 Parganas. Tool was used for analysis

of data. Annual Examination's score is also taken as the Academic Achievement of the students.

Data Analysis

t-test and correlation were done according to the need of research situation.

Table 1 : t-values for the comparison of level of Self-Concept between Joint family children and Nuclear family children

Group Statistics				Independent Samples Test
Family type	N	Mean	Std. Deviation	t-value
Joint Family Children	300	173.78	15.464	-0.331*
Nuclear Family Children	300	173.35	16.362	
*Not significant at even 0.05 levels of significance				

From Table 1, it is evident that Self-Concept Mean of Joint family is 173.78 and Self-Concept Mean of Nuclear family is 173.35. Self-Concept SD of Joint family is 15.464 and Self-Concept SD of Nuclear family is 16.362. Self-Concept Mean Difference between Joint family and Nuclear family is -0.430.

The t – value scores of Self-Concept between Joint family and Nuclear family children was found to be -0.331 which was not significant at even 0.05 levels of significance.

The above result has accepted the Hypothesis No. 1. So there is a no significant difference in mean scores in Self-Concept between Joint family and Nuclear family children.

Table 2 : t-values for the comparison of level of Self-Concept between Joint family boys and Joint family girls

Group Statistics				Independent Samples Test
Gender type	N	Mean	Std. Deviation	t-value
Joint Family Boys	150	174.76	16.189	1.098*
Joint Family Girls	150	172.80	14.691	
*Not significant at even 0.05 levels of significance				

From Table 2, it is evident that Self-Concept Mean of Joint family boys is 174.76 and Self-Concept Mean of Joint family girls is 172.80. Self-Concept SD of Joint family boys is 16.189 and Self-Concept SD of Joint family girls is 14.691. Self-Concept Mean Difference between Joint family boys and Joint family girls is 1.960.

The t – value scores of Self-Concept between Joint family boys and Joint family girls children was found to be 1.098 which was not significant at even 0.05 levels of significance.

The above result has accepted the Hypothesis No. 2. So there is a no significant difference in mean scores in Self-Concept between Joint family boys and Joint family girls.

Table 3 : t-values for the comparison of level of Self-Concept between Nuclear family boys and Nuclear family girls

Group Statistics				Independent Samples Test
Gender type	N	Mean	Std. Deviation	t-value
Nuclear Family Boys	150	174.95	14.051	1.703*
Nuclear Family Girls	150	171.75	18.293	
*Not significant at even 0.05 levels of significance				

From Table 3, it is evident that Self-Concept Mean of Nuclear family boys is 174.95 and Self-Concept Mean of Nuclear family girls is 171.75. Self-Concept SD of Nuclear family boys is 14.051 and Self-Concept SD of Nuclear family girls is 18.293. Self-Concept Mean Difference between Nuclear family boys and Nuclear family girls is 3.207.

The t – value scores of Self-Concept between Nuclear family boys and Nuclear family girls children was found to be 1.703 which was not significant at even 0.05 levels of significance.

The above result has accepted the Hypothesis No. 3. So there is a no significant difference in mean scores in Self-Concept between Nuclear family boys and Nuclear family girls.

Table 4 : Inter-correlation Matrix for the measurement of the dependent and independent variables in Total Aspect.

Correlations			
Variables		Self-Concept	Academic Achievement
Self-Concept	Pearson Correlation	1	.135**
	Sig. (2-tailed)		.001
	N	600	600
Academic Achievement	Pearson Correlation	.135**	1
	Sig. (2-tailed)	.001	
	N	600	600
**. Correlation is significant at the 0.01 level (2-tailed).			

From Table 4, Self-Concept of both Joint family and Nuclear family children are positively correlated with Academic Achievement of both Joint family and Nuclear family children (Significant). **The above result has rejected the Hypothesis No. 4. So there is a significant correlation between Self-concept and Academic Achievement of the Total children both Joint family and Nuclear family.**

Conclusion

From the analysis of the study it was revealed that Joint family children and Nuclear family children did not differ significantly in mean scores in the Self-Concept. Moreover, it was observed that Self-Concept of the children had a highly positive correspondence with the academic achievement. It showed that higher Self-Concept would ensure higher achievement. So the researcher recommended that attempts should be taken by the teachers, guardians and the persons interested in education to develop in the students Self-Concepts in different academic subjects. It is considered as an essential determinant of achievement. So through class-teaching, more freedom, opportunity to work independently providence of proper recognition of the students for their good performance, opportunity to help them, engage in deliberation, discussion, debates, recitation, quiz programme etc should be allowed to the students to develop proper Self-Concept in academic subject.

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Socio-economic Status-wise Distribution of Academic Achievement and its Relationship with Physical Fitness Parameters

Soma Das, Amit Bandyopadhyay** and Md. Kutubuddin Halder****

Abstract

The present research was focused mainly on Socio-economic Status- wise (SES) distribution of academic achievement and its relationship with physical fitness profile of XIth standard school going adolescent girls. The random sampling technique was applied. 131 girls were selected from four government aided schools in Southern part of Kolkata, India. In order to study the Physical fitness profile, physical and physiological parameters, namely, body composition, explosive muscular power, flexibility, agility, muscular endurance, maximum oxygen consumption and aerobic capacity were determined by standard procedures. The SES was also determined by adopted scale of Kuppuswami. The Academic Achievement was measured with the help of report card of the Board examination, 2014 issued by the West Bengal Board of Secondary Education. Mean, S.D. and ANOVA were calculated and qualitative analysis of the data was also done. The results showed that the individuals belonging to High SES group had highest scores in most of the physical fitness parameters followed by Low and Medium SES groups. The High SES group also depicted highest level of academic achievement. The finding as a whole indicated best physical health condition and academic achievement of girls belonged to High SES. They were followed by the girls those belonged to Low and Medium SES groups respectively.

Key Words: Socio-economic Status, Physical Fitness, Academic Achievement, Adolescent girls

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Introduction

In today's world, 'development' of a child or adolescent refers to all-round development where psychological development contributes a major role. Among the various aspects of psychological development, cognitive development deserves special mention (Thomas, J.H., Keeley & Fox, K. R. 2009). Academic achievement is one of the major areas under cognitive development. Students' academic performance measurement has been given considerable attention in many previous researches as it was considered challenging aspects of education literature (Thomas, J.H., Keeley & Fox, K. R. 2009). Previously, most studies of student academic performance were conducted on issues like gender difference, teachers' education and teaching style, class environment (Tomprowski, P.D. Davis, C.L., Miller, P.H., & Naglieri, J.A. 2008). It was also reported that in each stage of education, i.e, primary, secondary and higher education stages academic achievement depends on several factors. Earlier works pointed out these factors were social, psychological, economic, environmental and personal factors (Mushtaq, I., & Khan, S.N. 2012). However, the relationship of other factors like physical fitness, exercise, diet, nutritional supply etc. with academic performance had not been studied in detailed so far (Tomprowski, P.D. Davis, C.L., Miller, P.H., & Naglieri, J.A. 2008). Earlier works reported only weak positive associations between physical activity and fitness with elements of cognitive function like academic achievement, but this was not supported by intervention studies. Fox found that the relationship between academic achievement and sports participation was inconsistent (Fox, K.R., 2001). Another study indicated, the data was insufficient to conclude that additional physical education time increases academic achievement; however, no detrimental effects had been reported either. (Mushtaq, I., & Khan, S.N. 2012). Depending on those earlier studies it was difficult to infer clearly the nature of association between the academic achievement and physical fitness.

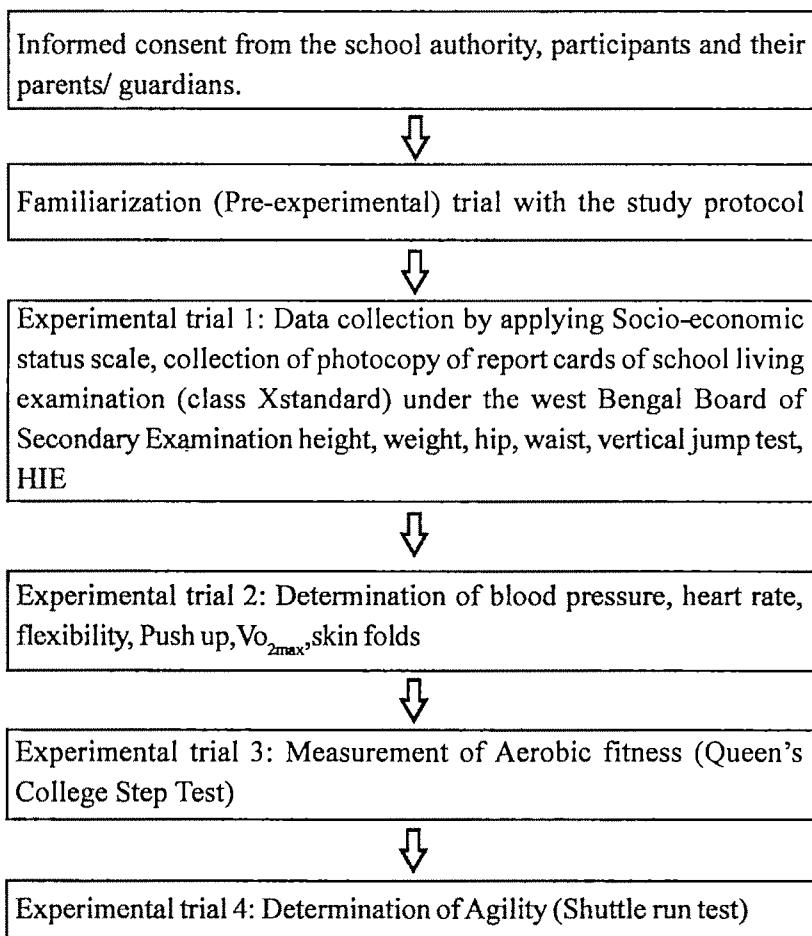
Another relevant observation was made by Thomas, J.H., Keeley & Fox, K. R. 2009. He found that most of the related works were carried on rural areas, and on male children, college goers or adult populations. He commented similar works on urban girls population was scanty.

By considering all the above mentioned observations, a research gap has been found that the area of academic achievement of late adolescent female city students in the light of the impact of physical fitness and socio-economic status (SES) variation on their academic achievement were not studied conclusively. Therefore, the present research focused mainly on variations of anthropometric parameters, body-composition (BC), physical fitness and academic achievement according to socio-economic status (SES) of girl students at XI standard. In the

present study, Physical parameters like Height (H), Weight (W), Heart rate, Systolic and Diastolic blood pressure, obesity parameters like Body mass index (BMI), Body surface area (BSA) and Body fat percentage (%fat), Body composition parameters for example body Skin –folds, Lean body mass (LBM) and physical fitness parameters like Vo2max, agility, flexibility, anaerobic power and muscle endurance were considered as different study variables.

Methodology

The random sampling technique was applied for selection of four government sponsored higher secondary schools from Kolkata. Initially a comprehensive list of higher secondary schools (for girls) in Kolkata was made. The schools were then arranged alphabetically according to the first letter of the name of each school. After that five schools which start with first part of the list were randomly selected and approached for data collection. Two schools out of five schools replied positively. But finally only one school gave consent for carrying the study. In similar way another set of five schools were picked up randomly from the mid portion of the list. From that group two schools turned up positively. Lastly, another group of five schools were again picked up randomly from last part. Individual schools were approached. However, only one school of this group replied positively. Thus altogether, one hundred and forty (140) girls were taken randomly from the above mentioned four schools. The students from each school were again selected randomly depending on the students' strength. Out of 140 girls 09 were incomplete data, so the sample consisted of 131 girls. Students with health complication or under medication were excluded from the study. The study protocol was approved by the Human Ethical Committee of the Department of Physiology, University of Calcutta. Before the actual phase of data collection the school authorities were approached to obtain necessary permission to conduct the study. After getting the permission from the school authorities, the study protocol was explained and demonstrated prior to the actual working session to individual participant in presence of their parents and Head of the Institutions. The queries asked by the participants regarding experiments were attained by the researcher. The entire study was carried repeatedly in four different schools during 12th January, 2014 to 28th March 2015. In every school the total working schedule was divided into several experimental trial sessions. The detailed study design was as follows.



Preparation of Subject

All the subjects were attended by the researcher well in advance of the actual experimental session in each school. Informal interactions were made at that time to boost the confidence level of individual subject. Adequate rest was provided to all of them before the commencement of experimental trials in each day. The researcher spent one day for four subjects to collect data for each experimental trial session. Body height and body mass of the participants were measured by making them standing barefoot and wearing minimum clothing. Body mass was measured on a weighing machine and the height of the participants was measured by standard anthropometric rod.

Determination of Socio-economic Status

The SES of the participants was determined by applying a modified version of Kuppuswami's Scale. The scale comprises of three components namely education

standard, occupation standard and income level of parents of the respective participant and accordingly the data were collected. Education scores were classified into 7 point scale as Illiterate/Primary education (I-IVth standard), Middle school (V-VIII standard), High school (IX-Xth standard), Intermediate or post high school(XI-XII), Graduate or Post graduate and Profession or Honours. Their respective scores were 1, 2, 3,4,5,6 and 7. The Occupational scores were also graded in 7 point scale as: Unemployed (1 score) , Unskilled worker (2), Semi skilled worker (3) , Skilled worker (4) , Clerical, Shop-owner, Farmer (5), Semi-Profession (6), Profession (10). The parental income range was graded in another 7 point scale like income :d” Rs1800 (1 score) , Rs 1801 to Rs 6809 (2), Rs 6810 to Rs10009 (3) , Rs10010toRs1419 (4), Rs 1420 to Rs. 1819 (6), Rs 1820 to Rs 34049 (10) and above Rs 34050 (12 score).The educational and occupational scores which are higher from either of the parents were summated with income scores of both of them to determine the final SES score of the respective participants.The obtained total scores were graded as <5 or 5-10=low SES category,11-25=medium SES and 26-29= high SES. The individual participant was assigned a position as low/medium/high SES on the basis of the final SES scores Kumar, B.P.R.,Dudala, S.R., & Rao, A.R. (2013).

Determination of Academic Achievement

The academic achievementof the students were determined by taking records of their academic performance in the class 10 Board examinations under the West Bengal Board of Secondary Education.The photo copies of their board examination mark sheets werecollected. The percentages of obtained score by sample population were noted as score of academic achievement.

Determination of Anthropometric and Physical Parameters

In the present study anthropometric measurement (Cameron, C.,2003) included the measurement of height, weight. The physical parameters were heart rate and blood pressure. Height was measured with anthropometric rod. Weight was determined using Human weighing machine. Heart rate was calculated by noting pulse beat. Blood pressure was measured using sphygmomanometer following oscaltatory method.

Determination of Obesity Parameters

These parameters were BMI, BSA,% fat, Lean body mass (LBM) and % LBM and skin fold thickness.BMI was obtained by dividing weight in kilograms by height in squared meters.BSA, LBM and %LBM were determined by using standard formulae (Ifeoma, F. O., Lawrence, U.Ezeanyika, S., & Uchendu, N., 2015). Skin fold thickness were measured at the right arm and right leg using

Holtain skin fold callipers. Body fat % was determined using triceps and calf skinfold equation. The equations are as follows:

Body fat % for females = $0.610 (\text{triceps} + \text{calf skinfolds}) + 5.0$

Determination of VO_{2max}

The Aerobic fitness was determined in terms of cardiorespiratory fitness or VO_{2max} by applying Queen's College Step test. The participants were instructed to perform exercise by stepping up their legs one after another on a 16" stool and stepping down the legs in same fashion for a duration of 3 minutes. The subjects were allowed to follow a pre-fixed rhythm maintained by a metronome for stepping up and stepping down in this manner. Immediately after 3 minutes the subjects were stopped doing exercise and after a pause of 5 seconds, the pulse pressure was measured from their carotid artery for next 15 seconds. This data was extrapolated to calculate the pulse pressure (heart rate) for one minute. This data was then used to determine the VO_{2max} following the standard formula (Eisenmann, J.C., Laurson, K.R. & Welk, G. J. 2011).

Determination of Anaerobic Power

The anaerobic power was determined by a 60-yard dash run test. Three marker cones were placed at the yard lines by maintaining 5 yards distance. Each participant started running from one end, covered 5 yards and came back to the starting line. Immediately she started running 10 yards mark and again came back to the starting line and immediately thereafter ran to the 15 yards mark line and returned finally to the start line. Thus a total of 60 yards were covered. In each step, the participants were instructed to touch the ground line with their fingertips at each turn. Thus a total of five touches were made by individual. The time taken by participants to complete the total distance was recorded with a stopwatch.

Determination of Explosive Muscular Strength (Vertical Jump Test)

It was measured by keeping the subject in side wise standing posture on to a wall. She kept the feet flat on the ground, reached one hand up to touch the wall. The point on the wall touched by the fingertip of the middle finger was marked. This measurement gave the value of standing reach height. The subject then went little away from the wall and leaped vertically as much high as possible using both legs and hands to assist in projecting the body upwards. This step was performed thrice. The highest point touched out of three attempts was considered as best jump height. The difference between best jump height and standing reach height was measured to get explosive muscular strength (VJT) score (Roy, A.S., & Bandyopadhyay, A. 2015).

Measurement of Flexibility

Flexibility of the subject was measured by sit and Reach test (Mendes, B. Ercin, T., Uzun K. 2015). The subject was allowed to stretch her legs ahead. Shoes were removed. The soles of the feet were placed flat against the box. Both knees were locked and pressed flat to the floor. The tester assisted by holding them down. Keeping the palm facing downwards, the hands were kept on top of each other or aside by side. The subject reached forward along the measuring line as far as possible. It was ensured that both hands have been placed care was taken to keep the hands remain at the same level, not one reaching further forward than the other. After some trial practice, the subject reached out and held that position for about two seconds while the distance was recorded. Any jerky movement (knee jerk) was avoided.

Determination of Agility (by Shuttle run test)

The subject was allowed to run back and forth between two parallel lines as fast as possible. Two lines were set up 30 feet apart. Two wooden blocks were kept behind one of the lines. Starting at the line opposite the blocks, on the signal "Ready? Go". The participants were run to the other line and were pick up one block and returned to place it behind the starting line. Then returned to pick up the second block and run with it back across the line. The time taken for the entire running period was recorded using a stop watch (Bal, B.S., Singh, K., Vaz, W. 2011).

Measurement of Muscular Endurance

The muscular endurance of abdominal muscle was determined by 1 minute *sit up test* (Hagberg, M. 1981). The individuals were instructed to lie down on a Yoga-mat comfortably. They then were told to fold the leg vertically at knee-joint and put both hands below the head. Then a stopwatch was started and the subjects were told to lift the upper portion of the body in forward direction and touch the fore-head with the knee. Thereafter, again they were lied down on the yoga-mat, keeping the legs bend as before. The same type of sequence of movements was repeated till completion of 1 minute. As 1-minute was over the stop-watch was stopped. The number of times a person can touch the knee with fore head gave the measure of sit up test for endurance of abdominal muscle.

Statistical treatment of the data

Mean and standard deviation (SD) were calculated for analysis of the data. ANOVA was used to test the significance of difference between means. Further, post hoc analysis was carried out by the using of Leven's t-test.

Results

The findings of the study are depicted from tables 1 to 10. It is found from the study that out of 131 undertaken as sample, 33, 80 and 18 girls belonged to low, medium and high SES categories respectively. Anthropometric data in terms of the mean and SD values of body height, body mass, BMI, BSA, waist and hip circumference, Waist/Hip ratio, Heart rate and Blood pressure of the sample group according to their Socio-economic status (SES) classified into three categories as family of low, medium and high SES group are presented in table 1. It is observed from the table 1 that among the three, the medium SES category depicted highest mean value in body weight, BMI, BSA, Systolic and diastolic pressure but in case of Height and Heart rate, the high SES group possessed highest mean value.

It was also observed from the ANOVA result that there were significant differences in Body weight, BMI and BSA scores among the low, medium and high SES categories (Table 2). Further applying t-test, it is found that the BMI was significantly higher in Medium SES group than the High ($t_{\text{obs}} = 3.56 > t_{0.01,96} = 2.63$) and Low ($t_{\text{obs}} = 3.56 > t_{0.05,96} =$) SES groups. The BSA was significantly higher in Medium SES group than the High ($t_{\text{obs}} = 3.76 > t_{0.01,96} = 2.63$) SES groups.

Table 1: SES wise mean and standard deviation of the scores of various Anthropometric and Physical Parameters

Socio-economic status		Anthropometric and Physical Parameters									
		Body Height (cm)	Body Weight (kg)	BMI (kg m ⁻²)	BSA (m ²)	WC (cm)	HC (cm)	WHR	HR (beats min ⁻¹)	BP (mm of Hg)	
										Systolic	Diastolic
Low (n=33)	Mean	153.72	46.30	19.50	1.40	23.78	30.25	0.78	73.15	103.21	65.78
	SD	4.51	10.55	3.79	0.14	2.12	2.34	0.05	6.00	9.62	6.55
Medium (n=80)	Mean	153.44	55.62	22.86	1.53	24.79	31.21	0.79	73.57	108.33	68.5
	SD	5.16	13.82	5.25	0.17	2.87	2.90	0.07	5.05	9.22	8.02
High (n=18)	Mean	155.78	46.09	19.55	1.40	23.14	29.71	0.77	74.61	103.51	66.81
	SD	5.26	7.90	3.07	0.11	3.21	3.45	0.06	5.18	7.97	6.59

BMI- body mass index; BSA- body surface area; WC- waist circumference; HC- hip circumference; WHR- waist to hip ratio; HR- heart rate; BP- blood pressure.

Table 2: ANOVA for Comparison of Various Anthropometric and Physical Parameters among the three SES groups

Various Anthropometric and Physical Parameters		Sum of Squares	df	Mean Square	F
Height	Between Groups	80.957	2	40.478	1.566
	Within Groups	3308.147	128	25.845	
	Total	3389.104	130		
Weight	Between Groups	1392.508	2	696.254	7.582**
	Within Groups	11754.354	128	91.831	
	Total	13146.862	130		
BMI	Between Groups	171.514	2	85.757	6.539**
	Within Groups	1678.598	128	13.114	
	Total	1850.112	130		
BSA	Between Groups	.253	2	.126	6.949**
	Within Groups	2.330	128	.018	
	Total	2.583	130		
HR	Between Groups	25.075	2	12.537	.432
	Within Groups	3716.070	128	29.032	
	Total	3741.145	130		
Systolic	Between Groups	395.362	2	197.681	2.297
	Within Groups	11013.630	128	86.044	
	Total	11408.992	130		
Diastolic	Between Groups	89.288	2	44.644	.776
	Within Groups	7360.147	128	57.501	
	Total	7449.435	130		

** 0.01 level of significance

Table 3 expressed SES wise skin-fold parameters like biceps, triceps, sub-scapular, supra-iliac abdomen, mid-thigh and calf of the sample groups. Here the medium SES showed highest mean value (though statistically not significant) for biceps, abdomen, mid-thigh, calf and sum of skin folds. However, the mean values of triceps and sub-scapular skin-folds were highest in case of High SES group than other two SES groups. The Low SES group possessed highest mean score in Supra-Iliac skin-fold than other two SES groups. Among all those scores Sub-scapular was significantly higher in High SES group than the Medium ($t_{obs} = 3.56 > t_{0.01, 96} = 2.63$) and Low ($t_{obs} = 4.01 > t_{0.01, 49} = 2.68$) SES groups. The Supra-Iliac was significantly higher in Low SES group than the High ($t_{obs} = 2.38 > t_{0.05, 49} = 2.01$) SES groups.

Table 3: SES wise mean and standard deviation of the scores of Various skinfolds in three SES groups

Socioeconomic status		Skinfolds (mm)							
		Biceps	Triceps	Sub-scapular	Supra-iliac	Abdomen	Mid-thigh	Calf	Sum of skinfolds
Low (n=33)	Mean	5.97	7.85	8.71	13.41	13.31	13.88	12.32	75.48
	SD	1.72	1.70	1.33	1.82	2.74	3.11	2.11	11.28
Medium (n=80)	Mean	5.99	8.07	9.02	12.92	13.94	14.36	12.59	76.91
	SD	1.50	1.74	1.49	1.59	2.29	2.97	2.04	10.37
High (n=18)	Mean	5.48	8.88	10.37	12.14	13.68	13.61	12.7	76.88
	SD	0.97	0.91	1.45	1.69	2.08	2.25	2.16	10.72

Table 4: ANOVA for Comparison of Various Skin-fold Parameters among the three SES groups

Variables		Sum of Squares	df	Mean Square	F
Biceps	Between Groups	3.937	2	1.969	.851
	Within Groups	296.132	128	2.314	
	Total	300.070	130		
Triceps	Between Groups	13.168	2	6.584	2.376
	Within Groups	354.610	128	2.770	
	Total	367.778	130		
sb-scaplr	Between Groups	34.254	2	17.127	7.955**
	Within Groups	275.575	128	2.153	
	Total	309.829	130		
sup-iliac	Between Groups	18.772	2	9.386	3.288*
	Within Groups	365.359	128	2.854	
	Total	384.131	130		
Abdominal	Between Groups	9.195	2	4.597	.786
	Within Groups	748.992	128	5.852	
	Total	758.187	130		
mid-tigh	Between Groups	11.150	2	5.575	.637
	Within Groups	1119.397	128	8.745	
	Total	1130.547	130		
Calf	Between Groups	2.250	2	1.125	.253
	Within Groups	568.169	128	4.439	
	Total	570.419	130		
sum of BC	Between Groups	50.088	2	25.044	.215
	Within Groups	14889.699	128	116.326	
	Total	14939.787	130		

** 0.01 level of significance *0.05 level of significance

Table 5 displayed SES wise means and SD of body-composition parameters like body density, percent fat (% fat) and lean body mass (LBM). The Medium SES population depicted highest % fat. On the contrary the High SES population resulted significantly higher LBM than medium SES ($t_{obs} = 4.24 > t_{0.01, 96} = 2.63$) and low SES ($t_{obs} = 2.81 > t_{0.01, 49} = 2.68$) (table 5).

Table 5: SES wise mean and standard deviation of the scores of various Body-composition Parameters

SES groups		Body Density(gm/CC)	%fat	%LBM	Total Fat (kg)	LBM (kg)
Low(n=33)	Mean	1.41	14.69	85.30	6.80	39.45
	SD	0.0097	1.73	1.92	1.22	8.64
Medium(n=80)	Mean	1.06	14.81	85.18	8.23	39.19
	SD	0.0041	1.82	1.82	1.11	6.29
High(n=18)	Mean	1.06	14.56	85.43	6.71	47.33
	SD	0.0038	1.6	1.68	1.30	10.58

Table 6: ANOVA for Comparison of Various Body-composition Parameters among the three SES groups

Variables		Sum of Squares	df	Mean Square	F
bd-dnsty	Between Groups	3.017	2	1.508	1.496
	Within Groups	129.025	128	1.008	
	Total	132.041	130		
% fat	Between Groups	1.106	2	.553	.161
	Within Groups	439.433	128	3.433	
	Total	440.540	130		
LBM	Between Groups	1010.346	2	505.173	8.447**
	Within Groups	7655.462	128	59.808	
	Total	8665.808	130		

** 0.01 level of significance

Table 7 represented SES wise fitness parameters namely, heart rate, vo2max, agility, flexibility, vertical jump test (VJT), muscular endurance and anaerobic power. Notably, the high SES group had highest scores in vo2max, flexibility and VJT. Again this group indicated highest muscular endurance, agility and anaerobic power than other two groups. However, comparison between means showed no statistically significant difference. ANOVA was calculated for Comparison of

Various Physical - Fitness Parameters among the three SES groups and the result of the ANOVA were shown in Table 8.

Table 7: SES wise mean and standard deviation of the scores of various physical-fitness parameters

SES Groups		QCT-HR (beats/15 sec)	QCT-HR (beats/ minute)	VO	Agility (sec)	Flexi bility (cm)	VJT (cm)	Muscular endurance (steps/minute)	Anaerobic power (sec)
Low (n=33)	Mean	39.51	158.06	46.24	14.16	2.70	25.42	14.30	17.151
	SD	7.92	31.69	13.31	1.92	3.45	3.90	6.01	1.51
Medium (n=80)	Mean	37.9	151.6	44.94	14.30	2.67	22.67	13.05	16.72
	SD	6.81	27.26	11.45	2.32	3.38	4.64	6.409	1.81
High (n=18)	Mean	38.72	154.88	47.65	13.575	4.35	25.43	14.41	16.55
	SD	4.55	18.22	7.65	1.96	3.38	3.63	3.39	1.57

VO stands for VO_{2max} ($ml.kg^{-1}.min^{-1}$)

Table8:ANOVA for Comparison of VariousPhysical - Fitness Parameters among the three SES groups

Variables		Sum of Squares	df	Mean Square	F
QCT HR (1 min)	Between Groups	1005.678	2	502.839	.653
	Within Groups	98608.857	128	770.382	
	Total	99614.534	130		
VO ₂ max	Between Groups	177.402	2	88.701	.653
	Within Groups	17394.602	128	135.895	
	Total	17572.004	130		
Agility (sec)	Between Groups	12.349	2	6.175	1.264
	Within Groups	625.361	128	4.886	
	Total	637.710	130		
Flex (cm)	Between Groups	43.019	2	21.510	1.817
	Within Groups	1514.923	128	11.835	
	Total	1557.942	130		
VJT (cm)	Between Groups	118.019	2	59.009	3.058
	Within Groups	2469.969	128	19.297	
	Total	2587.987	130		
Push Up	Between Groups	27.538	2	13.769	.376
	Within Groups	4685.302	128	36.604	
	Total	4712.840	130		
Anaerobic	Between Groups	5.592	2	2.796	.930
	Within Groups	384.637	128	3.005	
	Total	390.229	130		

Table 9 showed the percentage score of academic achievement of all three socio-economic groups. There were significant differences in academic scores among the three SES groups. More precisely, the High SES population resulted significantly higher Academic score than medium SES ($t_{\text{obs}} = 7.94 > t_{0.01, 96} = 2.63$) and low SES ($t_{\text{obs}} = 5.93 > t_{0.01, 49} = 2.68$) (Table 10).

Table 9: SES wise mean and standard deviation of the scores of the academic achievement (percentage expression)

Socio-economic status	Low SES(n=33)		Medium SES (n=80)		High SES (n=18)	
Academic score (%)	Mean	SD	Mean	SD	Mean	SD
	45.90	9.00	45.22	8.13	64.27	12.47

Table 10: ANOVA for Comparison of Various Physical - Fitness Parameters among the three SES groups

Variables		Sum of Squares	df	Mean Square	F
AA %	Between Groups	5529.681	2	2764.841	32.828**
	Within Groups	10780.288	128	84.221	

** 0.01 level of significance

Discussion and Interpretation

The present study revealed some important findings regarding the overall physical fitness and academic achievement of the sample population along the SES gradient. The students, belong to high SES group had much high academic achievement than middle and low SES populations. A question may arise at this juncture, why was it the high SES category to score highest in academic area? From sociological point of view it can be explained. Students belong to high SES had easy access to all sorts of support like tuition, parental guidance, infrastructural supports etc. In addition the parents in high SES generally have sound educational background and are professionally well established. Therefore, they can guide and provide suitable learning environment for nurturing scholastic ability among their child and adolescent daughter and son. Moreover, students of high SES may be very much focused on study and career development due to enormous social expectations (Drenowatz, C., 2010) in the surrounding. On the contrary, students, belong to middle SES category may be lacking in definite goal in life and therefore are less motivated to achieve success in academic field. In addition, some times their parents are also not aware of the need of doing well in academic.

Regarding the low SES group, they spend most of their time to ensure bread and butter for survival. Consequently, negligible time is left for development of their scholastic ability. It is reflected in their poor academic achievement as found in the study. (Bohr, A.D., Brown, D., Lawson, K., & Bass, R.W. 2013) These predictions have been made in general way. Exceptions may be found in all those cases.

Since, the present study is primarily designed to find the effect (if any) of physical fitness on academic achievement, the physical fitness parameters and allied physiological parameters were studied in detailed and the results were displayed in table 1 to table 4 in results section. The result revealed some important findings. The middle SES group expressed greatest value of BMI, Blood pressure, Percent fat (%fat) and body composition (sum of skin folds) than other two SES groups. All those findings indicate the highest probability of overweight and obesity in middle SES group compared to other two SES groups. This observation basically adds to the established data of earlier works (Dhara, P.C., & Mukherjee, R. 2014) which showed poor academic success in children who are either overweight or obese. It was reported that individuals with more body fat may lack attentiveness and proper executive functions like flexibility in mental tasks (Lokken, K.L., Boeka, A.G., Austin, H.M., Gunstad, J. and Harmon, C. M. 2009). However, some contradictory reports are also available which reported no effect of excessive body fat on academic performance (Datar, A., 2004).

Another important observation was the occurrence of highest scores in most of the fitness parameters of high SES population. Those fitness parameters were namely, VO_{2max} , flexibility and muscular endurance. The results altogether denote best physical fitness status of high SES population compared to other two SES populations. Along with the favourable supports made generally by the high SES population, proper diet and nutrition play an important role in growth and development of children and adolescents. Those results may have many folds physiological and psychological advantages (Mo-suwan, Lebel, L., Puetpaiboon, A., & Junjana, C. 1999). Regular physical activity may reduce plasma noradrenaline (Dwyer, T. T., Sallis, J. F., Blizzard, L. et.al. 2001). It may also increase the transfer of the serotonin precursor tryptophan across the blood brain barrier, leading a calming effect in children and adolescents and enabling them to sit and put attention on academic matters (Jennings, G., Nelson, L., Nestel, P. et.al 1986). The similar view was shared by the SHAPE study (Dwyer, T., Coonan, W. E., Leitch, D.R., et.al. 1983). They demonstrated that the classroom behaviour of 10 year old children was improved following a programme of daily physical work out. Another research had also depicted that blood flow to the cerebral cortex of the brain was increased following bouts of exercise (Herholz, B., Buskies, B., Rist, M. et.al. 1987) and thus ensured greater supply of oxygen

to the brain cells to keep the organ active for prolong period of time. Supportive observation was made by McAuley (McAuley, E., 1994). He concluded that a positive relationship exists between physical activity and self-esteem (a psychological trait) in children. Some other supportive works reported that regular physical exercise and fitness have several positive neuro physiological effects like increased blood flow, enhanced arousal level, change in hormonal secretion and improved self-esteem (Dwyer, T. Sallis, J.F., Blizzard, L. et.al. 2001). It was reported too that improved self-esteem may result in better classroom behaviour and more desire to learn (Bluechartdt, M., Wiener, J., & Shephard, J. 1995).

Altogether, the high SES group who scored highest in academic achievement also scored best in physical fitness tests among all the SES groups. A possible explanation may be the consciousness of having sound physical fitness among individuals belong to high SES. Consequently the members of this SES category practically participate regularly in physical exercise or fitness work out (Pavon, D.J., 2010). Study reports also suggest a possible reason of poor physical fitness in medium SES. The low SES is sedentary life style where adolescents remain busy in watching TV rather than participating in physical activities at leisure (Dollman, J., Magarey, A., Ridley, J. K. et.al. 2007). Moreover, students of poor SES though do not take part in organised games and sports but remain busy with day-to-day physical activities on daily basis. Thus it can be said that instead of a single physical fitness parameter a group of physical fitness parameters and associated physiological factors may contribute effectively for improvement of scholastic ability.

Conclusion

On the basis of the result found in the current study it can be recommended that schools and families and government should come forward to work hand in hand to provide better life style, sound physical and mental health to the young generation of our society for securing success and prosperity in individual and social life. To be more precise, Parental education and awareness would play very important role in making their adolescent offspring physically fit and active. They could do it by maintaining diet, food habit and regular exercise. On the other hand, the school authority has to take initiative to make physical exercise programme compulsory (rather than treating it as unnecessary burden) at all stages of education i.e., primary, secondary and higher secondary. Teachers can clarify the necessity of staying fit and healthy. It is desired that school leaders will state about the importance of physical fitness and its effect on students' achievement. Policy makers should make favourable physical education scheme for this purpose.

Finally, everyone, including parents, teachers, and the students, need to work in collaboration to design a comprehensive physical fitness programme to bring about healthy physic and mind of the children and adolescents. At the end it is suggested that a study of similar design but of longer duration and larger sample size is needed to assert confidently a pathway involving physical activity and fitness to contribute in an important way to scholastic performance in all types of SES in the society.

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Research Abstracts

Higher Education: Moral Judgement of College Entrant

Title	A Study of The Moral Judgement of College Entrant and Their Opinions Regarding Certain Contemporary Issues
Research Scholar	Guddu Singh
Supervisor	Aditi Ghose
Department	Department of Education, University of Calcutta
Degree Awarded	Ph.D. 2016
Availability	Central Library, University of Calcutta

Much is expected from education by society apart from academic knowledge. School education is supposed to nurture good citizens with strong moral ethics. Education is deemed to be the panacea for rectifying the ills of our society. This research aimed to find out whether education does indeed raise the level of moral judgement of students and imbue them to look closely at the issues our society faces, and to be fired with the desire to solve the problems of society.

The objective of the study consisted of assessing and comparing the moral judgement of youth with and without a full school education and thus commenting on the impact of education on morality and social awareness.

The population of the study thus consisted of urban youth, who had completed secondary school and, those who had not crossed the barrier of the lower primary school. The sample consisted of two groups: 245 College Entrants and 70 Workers who had not studied beyond the lower primary school. The Workers served as a comparative group against the College Entrants in the sample.

The study consisted of quantitative and qualitative procedure. The tools for the quantitative procedure consisted of a Personal Data Sheet, within which was the question ‘In your opinion what are the social problems in society?’ which assisted in identifying the Contemporary Social Issues most mentioned by the sample, i.e. dowry, child labour, gender inequality, child marriage and corruption and the Lind’s Moral Judgement Test. The scores of Moral Judgement Test were

examined and analyzed by statistical techniques including descriptive statistics, Mann-Whitney Test, and Chi-Square Test. The qualitative procedure consisted of case studies, the tools for which were an unstructured questionnaire for College Entrants, interview schedule for both College Entrants and Workers, and observation schedule.

The result showed that the modal level of moral judgement for the groups was medium. No significant differences in moral judgement were found between Workers and College Entrants as a whole and male College Entrants and male Workers. But in the case of females the difference in moral judgement between College Entrants and Workers was highly significant in favour of Workers.

The case studies showed a lack of intrinsic awareness of the social issues among College Entrants. Their extended schooling did not equip them to reflect on the social problems. The Workers, however, though blindly following traditions, were frank, and tempered their reactions with their varied experiences.

The study expresses the need for the less pedanticism and the need for a more practical based education to nurture responsible citizens of the future. This study implies that while moral reasoning and logical thinking are nurtured and strengthened by education, ideal moral values and moral judgement cannot be nurtured by imparting education alone. This study can serve as an alarm for our educationist, curriculum planner to improve education system and curriculum should be integrated and practical based.

Research Abstracts

Secondary Education: Communicative Competence in English

Title	A study of anxiety, self-efficacy and beliefs about language learning in relation to communicative competence of secondary level learners in English
Research Scholar	Anupama Chakrabarti
Supervisor	Madhumala Sengupta
Department	Education, University of Calcutta
Degree Awarded	Ph.D. 2016
Availability of the thesis	Central Library, Calcutta University

Background

English, though not a native language of India enjoys the status of second language in the country. This is because English is the most widely used link language within our country and also an important international language. In addition, liberalization of Indian economy has led to the advent of multinationals resulting in many developments like varied job opportunities that demand a communicative proficiency in English. So acquisition of an adequate communicative competence in English is one of the main challenges of India today. In spite of its being so coveted a language in India, majority of the students fail to achieve satisfactory levels of communicative competence in English. So it requires giving special attention to find out ways to help them out of such a depressing situation and adapt themselves to the demands of the day.

The Problem

The present study focuses on the three important affective factors, anxiety, self-efficacy and beliefs about language learning in relation to the learners' communicative competence in English. An understanding of the relationships of the aforesaid emotional variables with and their impact on communicative competence will sensitize the teachers to the probable causes of their students' low competence in communication. This in turn, will boost up their efforts in bringing down the affective filters of the students and let the 'language input' in, resulting in better student output.

The Objectives

The objectives of the study are:

- To assess the level of 2nd language (L₂) classroom anxiety, level of the beliefs and level of self efficacy about language learning of the students of Class X.
- To study the effect of foreign language anxiety, belief about language learning and self efficacy in learning English, gender, and place of residence on communicative competence (written) of the students.
- To explore the relationship amongst L₂ learning anxiety, self-efficacy, beliefs about language learning, and L₂ communicative competence (written).
- To develop a predictive model for communicative competence (written) of students.
- To make a qualitative analysis of the data related to oral competence of the students.

The variables

The variables studied are communicative competence, L₂ (English) classroom anxiety, self-efficacy in learning English and beliefs about language learning.

Sample

The sample was drawn randomly from 28 schools situated in different districts of West Bengal. The size of the sample is 582, divided into four categories of UB, UG, SB and SG. Here U stands for urban, S stands for semi-urban, B stands for boys and G stands for girls.

Tools

Tools used in the study are – The Foreign Language Classroom Anxiety Scale (FLCAS) of Horwitz, Horwitz, and Cope, (1986), validated in the Indian context; a Self-efficacy in learning English scale developed and validated by the researcher; Beliefs About Language Learning Inventory (BALLI) developed by Horwitz (1987), adapted to the Indian context; Board examination (Class X final Examination conducted by the Board of Secondary Education, West Bengal); an oral English test constructed and validated by the researcher.

Analysis

Both quantitative and qualitative analyses were done. In quantitative analysis apart from descriptive analysis for all sample groups and total groups, ANOVA and 't' tests were done to find the relationship among the variables, and regression analysis was done to find out the predictability of the scores in independent variables.

Qualitative analysis was done to find additional information about other possible subjective factors exerting influence on communicative competence, which strengthen the findings of the quantitative analysis.

Findings

The quantitative part of the research revealed that English (L2) Classroom anxiety is negatively related to communicative competence. Self-efficacy is found to be positively correlated with communicative competence. Beliefs about language learning in the total sample are found to have no significant correlation with communicative competence.

Qualitative part of the research pointed to the fact that extrinsic motivation, variety in day to day activities in the school and outside it, extensive reading, and regular attendance at school are to be emphasized. It is found that neighbours act as an influencing factor behind the students' communicative competence.

Conclusion

L₂ anxiety is a common factor in all the students and the majority belongs to the higher anxiety group. Anxiety has a significant negative correlation with communicative competence (written), the female students who are more anxious than the males, therefore, naturally score lower in communicative competence (written).

Majority of the students has reported to be highly self-efficacious (with self-efficacy scores above the mean) and self-efficacy is found to be negatively correlated with anxiety and positively correlated with written communicative competence. As such urban students, who are significantly more self-efficacious than the semi-urban students, score higher in communicative competence (written) as compared to the semi-urban students. Interestingly, though there is no difference between the male and female students in respect of self-efficacy, male students' score in written communicative competence is higher than that of the female students. It indicates that self-efficacy by itself is not a major factor in the success or failure in communicative competence, and there is an interaction effect of gender and residence on self efficacy scores.

Majority of the scores in beliefs about language learning falls to the lower side, indicating that the students possess stronger beliefs leading to higher scores in written competence. One important finding is that beliefs scores have no significant correlation with scores in written communicative competence, though beliefs score has a significantly positive correlation with self-efficacy which is significantly and positively correlated with marks. Therefore, it may be concluded

that for the total group beliefs too has a positive, though not significant, correlation with marks. Interestingly, however, the female students with stronger beliefs (scoring lower on the belief scale) score lower in written communicative competence than the male students with less strong beliefs (scoring higher on the belief scale). This happens because there is a significant interaction effect of gender and residence on beliefs.

The oral test was conducted on a small group of 30 students only. Therefore, inferential statistics is not done with the OT scores, but descriptive statistics points to the fact that boys are communicatively more competent than the girls, perhaps because natural shyness of the girls stands in their way of effective communication. Parents' language ability is found to be an important factor behind the students' success in oral communication, perhaps because language ability is something inherited by human beings. Students from large families score lower than those from small families. This is perhaps because, in small families children are more focused on studies than on other activities.

The findings of the present study and the conclusions drawn thereupon respond to these and therefore have significant implication for all involved in the process of English education in schools. The conclusions of the present study confirm that the policy makers at both levels and teachers need to be conscious of the fact that affects or emotions are very much involved in the process of learning English as second language and the success of the policies depend on them, to a great extent.

Research Abstracts

Secondary Education: Computer Based Instruction

Title	Effect of Instructional Visualization and Instructional Strategies on Student Learning Through Computer Based Instruction
Research Scholar	Sanju Saha
Supervisor	Santoshi Halder
Department	Education, University of Calcutta
Degree Awarded	Ph.D. 2016
Availability of the thesis	Central Library, Calcutta University

Introduction

Major focus of any education system is what to teach and how to teach. „What to teach? means which kind of learning material should be used for effective teaching and „How to teach? means the method of teaching, which varies from conventional lecture based teaching learning approach to computer based modern teaching learning approach. However, at the time of independence, India rooted on educational approaches with conspicuous gap with respect to class and location (Zubin, 2000). For this reason, probably the major focus of the government after independence was once to make education for all (Mukhopaddhay, 2010). In spite of gigantic initiatives being taken by the government nonetheless today India resides in the rural outskirts the place where education has not yet funneled right down to the masses. Indian education system encounters distinct style of challenges in present situation and one of the most important challenges is student-teacher ratio (Mukhopaddhay, 2010) which may be very wide as compared with many other countries of the world. In developed countries, this ratio stands at 11.4 where as in case of India, it is as high as 22.0 (The United Nations Educational, Scientific and Cultural Organization, 2009). It is even low in Commonwealth Independent States (CIS) at 10.9, Western Asia at 15.3, and Latin America with 16.6 (The United Nations Educational, Scientific and Cultural Organization, 2009). In India, still today 20 % of schools just have one teacher and matters are expected to get even worse (Mukhopadhyay, 2010).

Along with these, an additional venture is drop-out. India spends simply 3.5% of its gross domestic production on education, an approach beneath China's (8%) which has one million schools and most are state-run and sub-normal. It is alleged that the teachers simply take a seat round speaking and kids be trained nothing. Whilst 96 % India's children sign up in most important schools, by the age of 10 years about 40 % dropout. 2

Out of the 20 crore children between 6 and 14 years, 3 crores don't go to school while the other 8.5 crore drop-out who discontinue their schooling (Census of India, 2001). As per selected educational records given through (Ministry of Human Resource Development, Executive of India, 2000-2001) and the drop-out rate for classes I to VIII is 54 % and for classes I to X it is 69%. Only 31% children appear for class X public examination, of these children only 40 % pass these examinations. Govindaraju & Venkatesan (2010) find a couple of causes for drop-out in India, as stated in their research that majority of the elements come from teacher centric approaches such as, teacher failure to create a fun or enjoy full learning atmosphere, pupil's worry of academics from their authoritarian behaviors, low quality teaching, overly strict self-discipline, discrimination and so forth.

It was found from the previous study published by Annual Status of Education Report (ASER), the Programme for International Students Assessment (PISA) and the Quality Education Study (QES) explained, in teaching and learning process specially in science learning, drop-out rate was 5-10% in last few years (ASER, 2014; PISA, 2009; QES, 2010). Nevertheless, compared with other 74 countries students of India are ranked second to last at 73rd position, just above Kyrgyzstan in respect of drop-out rate in teaching and learning process. Now the question arises why this far difference ratio in respect of global orientation? Is there some gap or erroneous way being followed in teaching learning process? However, in respect of mentioned report it is visible that Indian education system is built on the presumption that if something is good for one kid, it is good for all. If one massive monolithic education system is to be provided to all, then there is no option but to assume that one size fits all. Additionally, Present education system fosters one-way communicative learning impairing further the capacity of the learner and creating boredom in classroom. However, mentioned report conveyed and explored one of the weakest issues in present education system and influences to rethink regarding the crisis of present Indian education system.

To handle the above-mentioned situation over the past various researchers raised their voice and encouraged to utilize various modern technologies in the present teaching and learning process. However, Technology has changed the

whole pattern of human life. The greatest contribution of cyber age technology is the development of computer and its use in all walks of life. The use of computer in teaching learning process has stepped many stages of its evolution. Teaching methods and instructional techniques in the classrooms have been changing influenced by learning theories and technological advancements. The fact that the use of technology has become a reality cannot be ignored. With the development of computer based instruction in education in India, the majority of the teachers in class shifted their teaching strategy from the original „Chalk Board teaching mode to the „Computer Projected teaching mode (Huang, 2011). Toffler (1991) explained that, *“no nation can operate a 21st century economy without a 21st – century electronic infrastructure, embracing computers, data communication and the other new multimedia technology”*.

Objective of the Study

The present study was designed with the following objectives:

- To investigate the effect of instructional visualizations (static, non-interactive dynamic and interactive dynamic) on students learning of different educational objectives in a Computer Based Instruction (CBI) environment.
- To investigate the effect of varied instructional strategies (no strategy, questions and questions plus feedback) on students learning in a CBI environment.
- To investigate the effect of instructional visualizations (static, non-interactive dynamic and interactive dynamic) and varied instructional strategies (no strategy, questions and questions plus feedback) on students learning in a CBI environment with respect to gender.
- To investigate the relative effectiveness of using varied instructional strategies (no strategy, questions and questions plus feedback) used to complement instructional visualizations (static, non-interactive dynamic and interactive dynamic) on students learning in a CBI environment.

Variables under the Study

In the present study, the main independent variable were instructional visualization and instructional strategies which is sub categorized as static, non-interactive dynamic (animated) and interactive dynamic for instructional visualization and no strategy, question and question plus feedback for instructional strategies. However, the dependent variables considered were three criterion test measuring student learning of educational objective categorized as identification (for factual knowledge), terminology (for conceptual knowledge) and comprehension (for rules and principle knowledge). Additionally, there was one Organismic Variable represented as gender.

Methodology of Research

Design of the Study: This study employed a posttest only, a 2×3 factorial experimental design. The two independent variables were types of instructional visualizations and types of instructional strategies. The dependent variables were three criterion posttests (identification, terminology and comprehension) measuring different learning objective of the students. The first independent variable, i.e., visual types, consisted of three levels; static visuals, animated visuals and interactive visual. The second independent variable used in the study were; instructional strategy comprising three levels; no strategy, questions and questions plus feedback.

Population of the Study: In the study students of class IX and X standard studying in English medium schools following Central Board of Secondary Education (CBSE) from Kolkata and its suburban areas in the year 2013-14 constituted as the population for the present study. In the first stage researcher listed 32 CBSE affiliated schools in and around Kolkata of which 27 schools were purposively selected for final data collection based on the inclusion and exclusion criteria.

Sample of the Study: Present study was conducted on the secondary level students of Central Board of Secondary Schools (CBSC) of Kolkata. Out of the 630 students 540 students were finally selected based on the matching criteria. Majority of them belonged to lower-middle-class families and their age ranged from 13-15 (mean age 14.26 years and $SD = 1.75$). Pilot study was conducted on 25% of the total sample and all the tools will be finalized after that.

Procedure of Data Analysis

MANOVA, Univariate ANOVA as well as post-hoc test was conducted for data analysis the main analyses were conducted in four phases:

In First phase, a variance of analysis is conducted on the physiology test scores to determine if there is a significant difference among the treatment groups on the physiology test.

In Second phase, as more than one dependent variable (Identification, Terminology and Comprehension) is used in conjunction with the independent variable, a multivariate analysis of variance (MANOVA) is conducted to compare the mean difference among the treatment groups on each criterion test.

In third phase, when found significant MANOVA result ANOVA was conducted to explore further.

In forth phase, post hoc test ware conducted to know more regarding significance difference.

Findings

- From the MANOVA result it was found that mean difference was significant. However, follow up test (ANOVA) and post-hoc analysis revealed that when compared with three conditions participants of interactive visualization condition outperform the other two conditions (Static, animated). Besides it also found that participants of animated condition outperform the static one in three criterion tests.
- MANOVA was conducted and it was found that mean difference was significant. Follow up test (ANOVA) and post-hoc analysis revealed that compared with three Instructional strategies participants of question with feedback condition outperform the other two conditions (no strategies and question). Besides it also found that participants of question condition outperformed the no strategies condition on three criterion tests.
- In respect of interaction between instructional visualization and gender as well as instructional strategies with gender MANOVA result revealed that there was significant difference between instructional visualization with gender thus hypothesis was rejected. However, interaction between instructional strategies with gender no significant difference was found thus hypothesis was retained. Follow up test (ANOVA) and post-hoc analysis revealed significance mean difference only in identification test on interaction between instructional visualization with gender. Male participants outperformed the females.
- The result of the MANOVA analysis revealed significant mean difference. Follow up test (ANOVA) and post-hoc analysis revealed significant mean difference only in identification and comprehension test. However, in terminology test no significant difference was found. In identification test student who used interactive visualization with question with feedback outperformed the no question and only question groups. Besides, student who used question strategies in interactive visualization outperformed the no question group. Additionally, in comprehension test interactive visualization group outperformed the static and animation groups.

Research Abstracts

Secondary Education: Family Structure, Stress and Achievement Motivation

Title	A study of family relation structure, stress and achievement motivation of higher secondary students
Research Scholar Supervisor	Jayatri Chakraborty
Department	Debasri Banerjee
Degree Awarded	Education, University of Calcutta
Availability of the thesis	Ph.D. 2016
	Central Library, Calcutta University

The aims of the study were to identify the perceived changes in family relation structure, stress as felt by the students and created by parents, the impact of all these on achievement motivation with regard to gender, class, academic stream and type of family.

Sample

600 male and female higher secondary students of arts, commerce and science from Kolkata participated in the study.

Tools

An Information Schedule, Family Relation Structure Scale, Achievement Motivation Scale, Stress scale- constructed by the researcher was used.

Analysis

Descriptive: Mean, Standard Deviation and percentages were calculated for Family relation structure, achievement motivation and stress. A high percentage of students feel they need to excel in their work. Many are of the opinion that the childhood environment was better. An average percentage of students fear for the higher secondary exam.

Quantitative: Significant differences were found in achievement motivation due to presence and absence of siblings. Those without siblings score highly in this regard. A significant difference in academic stream was found between science

and commerce students and in Class XI and XII as well. There was a difference in achievement motivation level amongst students without siblings in a joint family. The family relation created a difference. Presence and absence of siblings resulted in a significant difference in perception of the family environment.

Qualitative: Case study identified stressors had a huge impact on the students. The stress factor which had maximum impact was that of academic stress. It yielded maximum impact in Class XI. School was the least stressful factor for both Class XI and XII.

Research Abstracts

Elementary Education: Mid-day Meal Scheme

Title	A Study of the Educational Impact of Mid-day Meal Scheme in Primary Schools of West Tripura District
Research Scholar	Dipankar Biswas
Supervisor	Md. Kutubuddain Halder
Joint Supervisor	Nimai Chand Maiti
Department	Department of Education, University of Calcutta
Degree Awarded	Ph.D. 2016
Availability	Central Library, Calcutta University

Objectives

1. To study the infrastructure, which is an essential component for implementing the scheme.
2. To assess the quality of mid-day meal in Schools.
3. To study daily attendance of students in primary schools after the introduction of midday meal.
4. To study the school efficiency before and after implementation of midday meal scheme.
5. To study the effect of midday meal on social development of students in primary schools.
6. To find out the role of community and Panchayet to implement the scheme.
7. To identify the problems in the implementation of the scheme and to suggest measures to overcome them.

Sample

The study was extended to twenty (20) rural Government primary schools of West Tripura District of Tripura having 3896 pupils, 298 teachers, 20 community members, 20 cooks and 20 Head masters/Headmistresses. Data (Class wise attendance) collected by the researcher from the twenty schools of 2001(21647

students) and 2011 (24138 students) academic years. West Tripura District had 304 primary and 156 upper primary schools. This study was confined to the analysis how the mid day meal scheme affecting rural primary schools of Tripura District. The study delimited to take place at primary school levels (grades I-V) of twenty (20) selected rural primary school in all West Tripura District of Tripura.

Tools

1. Interview schedule on Physical facilities in the school.
2. Interview schedule for teachers, community/Panchayet and cook/helper.
3. Student's merit and attendance register.

Tools 1 and 2 have been prepared by the researcher and finalized on the basis of results of the pilot study and opinion of experts.

Analysis of Data

For quantitative analysis of data the regression analysis is carried out to find the causal relationship between attendance and existence of mid day meal. More precisely the method is applied to show how introduction of mid day meal effects the level of student attendance in schools. Regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables (or 'predictors'). More specifically, regression analysis helps one understand how the typical value of the dependent variable (or 'criterion variable') changes when any one of the independent variables is varied, while the other independent variables are held fixed. The *two-way ANOVA* compares the mean differences between groups that have been split on *two* independent variables (called factors). The primary purpose of a *two-way ANOVA* is to understand if there is an interaction between the *two* independent variables on the dependent variable. Analysis of variance is performed to find out whether there exist any differences in average monthly and class wise good attendance in the schools. Data from 2001 and 2011 is been analysed. In this study rate of drop out, stagnation and completion were calculated using 'True Cohort Method' which is more accurate method in comparison to 'Apparent Method' or 'Reconstructed Cohort Method'. This time series data also used to calculate the indicators of internal efficiency of the schools. The six indicators of internal efficiency of school, repetition, drop out and completion rate were calculated, analyzed and interpreted.

Findings

The researcher found that in the sample schools the maximum Pupil Teacher ratio (PTR) is 24:1 and the minimum is 5:1. Overall PTR in the sample schools is 13:1. The regression analysis is carried out to find the causal relationship between attendance and existence of mid day meal. More precisely the method is applied to show how introduction of mid day meal affects the level of student attendance in schools. The proportion of good attendance is significantly affected by the introduction of midday meal. The proportion of good attendance is increased when mid day meal is introduced as compared to when it was not been in existence. Furthermore the introduction of mid day meal explains 55% of the total variation in the proportion of good attendance.

The researcher found that that if good attendance is considered as dependent variable than month has a significant impact on good attendance of the students. The researcher compared the good attendance of month of January 2011 (Admission month) with other months of 2011, it is seen that good attendance is significantly low only in the month of April 2011. The researcher found that seasonal impact decreases in 2011 as compared to 2001. So from this data analysis, we may say that after the implementation of mid day meal, the effect of season on the good attendance has diminished significantly.

The researcher has done case studies on three different schools to know whether the attendance status in a particular day is reduced in the periods of different classes after the mid day meal distributed in the school. This case studies were done to observe whether there is any difference in the attendance of before and after periods of mid day meal distribution. The researcher did not find any difference in the attendance of before and after periods of mid day meal distribution.

Cohort analysis was done by the researcher to know the School efficiency before and after the implementation of the mid day meal. Phase-I (Before Implementation of MDM) and Phase-II (After Implementation of MDM) wise cohort analysis was done. The inputs per graduate in phase I, Phase II were 5.19 and 5.04 years respectively but ideally it should be 5 years. It is also seen here that input years were decreased which is definitely a positive sign of improvement after implementation of mid day meal. The input-output ratio for the first *phase* and second *phase* were 95.45% and 99.03% respectively. It indicates that there was an improvement in input-output ratio in Phase II after the implementation of Midday meal. The wastage in years in phase I and phase II were 3.6%, 0.79% respectively. It is clear that the input years have been decreased after the implementation of Midday meal.

Wastage ratio is a ratio between actual input output ratio and ideal output ratio and ideal input output ratio where actual input output ratio is actual input per graduate in years divided by ideal input. Ideal input output ratio is an ideal output divided by ideal input. The wastage ratios in phase I and phase II were 1.038 and 1.008 respectively. Ideally it should be 1.00, but it clearly indicates that there is a sharp declination in wastage ratios after the implementation of Midday meal. The wastage in student years is 26 in Phase I and 09 in phase II. So wastage has decreased after the implementation of Midday meal. Mid day Meal programme encouraged social development silently. The researcher visited twenty schools where nine cooks are schedule caste, three cooks are Schedule tribe, one cook is Muslim and seven others are from general community. Their caste and religion have not effected the mid day meal in any way. No student or their parents has never raised any voice against the mid day meal preparation by the SC, ST or religious minority in the school. So upper or lower caste or may be students from religious minority take food prepared by SC, ST and religious minority cook. The researcher found that in 3896 students of 20 sample schools, 1097 students are schedule caste, 623 students are Schedule tribe, 1063 students are from OBC, 191 students are Muslim and 922 are from general community. The students from different castes and religion take food sitting together. Sometimes they share their food also with each other. There was never any problem because caste or religion. All the students of different community take food together happily.

In twenty schools, the researcher met with twenty community and Panchayet members who are directly associated with school. Among them fourteen are panchayet members and six are members of school management committee. According to them most (85%) of them visit the school frequently and inspect mid day meal preparation and distribution. All the VEC members are adequately informed about their roles and responsibilities in MDM Scheme. Their participation in activities to ensure quality formal education and MDM in the villages is adequate. The members admitted to having received no formal training, before being made members of VEC. VEC and Panchayet members don't organize meetings together on a regular basis. The members are not involved in budget tracking and they are not aware of annual funds granted to MDM scheme. Across schools, the level of inspection and participation in mid day meal scheme of members varies. It has also been observed during the personal interviews that the literate members of the VEC and Panchayet are usually more informed and involved mid day meal. The researcher realised that there is a need to build the capacity of VEC and Panchayet members around their entitlements and responsibilities in MDM scheme. Such a

capacity-building program must aim to educate the members about important role of VEC and Panchayet members in MDM scheme. In all of the twenty schools visited by the researcher, the community members and members of school management committee inspect the midday meal for quality assurance.

On the basis of the findings it may be suggested that community participation is essential to make the scheme healthy. This will help on many issues like replacement of vessels, amt and sort out problem of safe drinking water; make appeal for gas connection, healthcare of the children, maintenance of healthy environment in the school premises, supply of food on social occasions, etc. including boosting enrolment of the children. To save further degradation of forest or vegetations, all the Mid-Day Meal Schools need to connect with solar cooking system. Even supply of gas is not in time, so as an alternative system should be developed. This scheme could be run through the self-help group run by the women who are efficient in maintaining of the accounts. Such women are now available as well educated women are easily available in villages of Tripura. The essential commodities such as edible oil, salt, gas etc. should be supplied along with food grains to the schools. This process saves transportation cost and manpower. Local food habits should be given importance while preparing the menu. The different tribes of Tripura have their own food habit. Effective inspection technique should be developed to maintain the transparency in the scheme. Because of price rise the allotted money for MDM should be increased as necessary. Allotted money for MDM should be released by the Dept. in time so that the school should provide MDM without any difficulty. The Scheme could be a platform for strengthening the school health programme in order to produce a real impact. Since the Supreme Court says that the onus to monitor the implementation of the scheme essentially lies with the Central government, as it is the Central government that is providing assistance, it is important that leakages from the MDM scheme should be stopped at all cost and proper monitoring should be there. Comprehensive, periodical and systematic orientation is mandatory to sensitize all stakeholders including the policy makers, implementers, teachers, centre level officials and community people to make them understand this scheme well. This would help them to become more efficient and be active partners in the programme that will certainly enhance its performance.

Research Abstracts

Elementary Education: Scheduled Tribe Girls

Title	Status of Education of the Scheduled Tribe Girls at the Elementary Stage in the District of Birbhum, West Bengal
Research Scholar	Abhisha Lahiri
Supervisor	Sridipa Sinha
Joint Supervisor	Manjusa Tarafdar
Department	Education, University of Calcutta
Degree Awarded	Ph.D. 2016
Availability of the thesis	Central Library, Calcutta University

The Right to Education Act (2009) is the culmination of the important documents like Universal Declaration of Human Rights,(1949), Education for All (UNESCO 1990) and Millennium Development Goals (2000).India as signatory to all these international policies launched Sarva Shiksha Abhijan (2000) to ensure elementary education for all including scheduled tribes who till today remain more or less isolated from mainstream life despite Indian Constitutional provisions.

The objectives of the study were to understand the status of education of the girls belonging to the Scheduled Tribe group in the district of Birbhum West Bengal, including accessibility,enrolement,and their retention in elementary schools. Their academic achievement was also compared with that of general category students.

The sample of the study was selected randomly from three different blocks of Birbhum, namely:

- a) Bolpur-Sriniketan Block,
- b) Mohammad Bazar Block and
- c) Suri –II Block.

The tools used in the study were Semi-structured Interview Scheduled, Structured Interview Schedule for Scheduled Tribe parents, Scheduled Tribe girls, Block Officials and Head Teacher of the institutions. Achievement Test was also used for the Scheduled Tribe Girls. The experts validated the Interview Schedules.

Research Abstracts

The result of the study showed that though there were physical availabilities, still educational accessibility is a far-fetched dream for ST girls. The study revealed that there is a significant difference between academic achievement of ST girls and other girls' students. Though some programmes have been initiated but irregularity in school inspection, less participation of parents and Village Education Committee are leading towards low retention rate of ST girl students in elementary education.

The implication of the study lies in the fact that the tribal students are integral part of general student population and if they continue to remain backward especially girl students, then the social and economic development of India would continue to remain sluggish. The findings from the study are likely influence the policies regarding tribal female education.

Research Abstracts

Pre-School Children: Cognitive Development

Title	Impact of Socio-Economic Status, Nutritional Awareness of Mothers and Nutritional Status on The Cognitive Development of The Pre-School Children
Research Scholar	Sunita kejriwal
Supervisor	Santoshi Halder
Department	Education, University of Calcutta
Degree Awarded	Ph.D. 2016
Availability of the thesis	Central Library, Calcutta University

The alarming figure of global infant mortality rate in India is 48 in 2010 and 40 in 2013(SRS,RGI, 2013). In West Bengal (eastern part of india) IMR is 31 in 2007-2009 and 32 in 2013 (SRS,RGI, 2013).It is estimated that 60% of death in world are due to hunger related diseases and malnutrition (United Nations Children’s Fund, UNICEF, 312007, 6th Report on World Nutrition). About 50% of all childhood deaths are attributed to malnutrition, additionally it also limits the development and the capacity to learn, hampers development of motor, sensory, social, emotional and cognitive development of child. Malnourished children are less likely to perform well in schools and are at a greater risk of diseases and early death. The main reason of this is poverty, unawareness of mother, illiteracy, economic condition of family and maternal education. The most affected population of children from various aspects is from the developing countries. The education level of woman has causal effect on health of next many generations. The schooling can provide woman knowledge about health issues, hygiene, nutritional awareness and increase their power in intra household decision and helps in effective use of health care services. In this study the impact of Socio-economic Status (SES), Nutritional awareness of mother and Nutritional status on the Cognitive development of the preschool children are studied.

Objectives

There were seven objectives formulated as per study ‘Impact of Socio-Economic Status, Nutritional Awareness of Mothers and Nutritional Status on the Cognitive

Development of the Preschool children'. These are as follows – (a) to study whether Nutritional Awareness of Mother is associated with socioeconomic status. (b) To study whether Nutritional Awareness of Mother is associated with Nutritional Status of the child. (c) To study whether Nutritional Awareness is associated with Cognitive Development of the child. (d) To study whether Nutritional Status and Cognitive development of the child varies with respect to gender. (e) To study whether Nutritional Status and Cognitive development of child varies with respect to Habitat (Urban and suburban). (f) To study the impact of SES, child nutritional status, and Nutritional Awareness of Mother on the cognitive development of the child. (g) To study the impact of SES, Nutritional awareness of Mother on the child Nutritional status.

Methodology

The survey was designed to cover all parts of the city of Kolkata and its suburban areas. The sample consists of 300 children of 3-4 years old of kindergarten and preprimary schools. The 300 children comprised of 164 boys and 136 girls.

Tools

The tools used in study are GIS (general information schedule regarding child and their parents), Hemapandey's cognitive development test for pre-schoolers, nutritional awareness of mother questionnaire (NAMQ), Nutritional status of the child by measuring weight and height. The statistical analysis used are Correlation Analysis, chi square analysis, conditional distribution analysis, Multiple Regression analysis and Multiple Logistic regression.

Result

The result shows strong relationship between Nutritional Awareness of Mother and socio economic status of the family, significant association between nutritional awareness of Mother and Nutritional Status of the child, Nutritional Awareness of mother showed strong association with the variables Socio economic status, nutritional status and also has significant association with Cognitive Development of the child, nutritional status and cognitive development of child varies with respect to gender and habitat, the boys are dominant over girls in cognitive development and also dominant in normal and above normal category of NS(WFA), (WFH) (HFA) than girls. Urban children shows upper hand in both nutritional status and Cognitive Development than suburban children. This research work developed a model which predicts the nutritional status classification of the child by merely knowing SES of family and nutritional awareness of mother.

Significance

The findings of the present study have various practical approaches for educators, health experts, stakeholders, government and common masses for the welfare of the society. However much has been done by the government but much remains to be done for health, nutrition and education for children. Various goals, plans, strategies objectives and activities were undertaken to improve nutritional status of children, increasing girl child education in school, reducing dropout rates, IMR, MMR and so on and still more to be done in this aspect. The finding may be useful for *educators* to predict the cognitive development of child by knowing only SES of the family and nutritional awareness of mother. This study will be able to draw attention to support strong national policies supporting women education and nutrient awareness, health care and hygiene of the mother and child.

Research Abstracts

Distance Education: Dual-Mode and Uni-Mode Universities

Title	A Comparative Study of Distance Education at the Post-Graduate Level between Dual Mode and Uni-Mode Universities
Research Scholar	Anwesha Acharya
Supervisor	Md. Kutubuddin Halder
Joint Supervisor	Nimai Chand Maiti
Department	Education, University of Calcutta
Degree Awarded	Ph.D. 2016
Availability of the thesis	Central Library, Calcutta University

The study was conducted to compare distance education at the post-graduate level between dual-mode and uni-mode universities and students of different courses of arts faculty of distance education at the post-graduate level. Rabindra Bharati University, Vidyasagar University, Netaji Subhas Open University and Indira Gandhi National Open University were considered as sample and 250 students,43 teachers 4 directors and 4 course coordinators of distance education were chosen for the study. Among 250 students, 163 learning were in distance mode and 87 were in regular mode. Three opinionnaires, (for teachers, directors and students) and socio-economic scale were prepared for data collection. The researcher has visited the selected four universities and their different study centers where she personally met with 250 students of distance and regular mode, pursuing studies in different subjects like Education, History and Political Science. She also met 43 teachers of same subjects teaching through distance mode and collected data through the above mentioned opinionnaires for the teachers (academic counselors). The researcher also met with the four directors and course coordinators. She also collected secondary data from the office of all the four universities regarding enrollment and results of the students. Both qualitative and quantitative analyses were done. For variables yielding quantitative results, percentage, mean, standard deviation, t-value, z-value, chi-square value and F-value were calculated and graphically presented. It was found that there remained certain diversities about objective, course contents and

study material, instructional strategy, methodology and evaluation system adopted in different universities and various facilities available there. There existed differences regarding pre requisite academic criteria required for admission in either uni-mode or dual mode university and also some differences in educational achievements of the students between regular mode and distance mode. It was observed that the Honours degree is mandatory to get admission in two dual mode universities but it is not compulsory for the two uni-mode universities. The student's enrollment in distance mode was greater than regular mode and the number of students in distance mode was almost six to fourteen times greater than regular mode in two dual-mode universities. It was found that the percentage of marks in secondary, higher secondary and under graduate degree of IGNOU students are better than other three universities. In addition to that, it was also found that the results of the students of uni-mode universities is better than the students of dual mode universities. The success rate of post graduate students of distance mode in RBU is better in the subjects like Education, Political Science, Bengali, English and Sanskrit than that of regular mode whereas, it is less than the regular mode in the subjects like History, Geography and Environmental study. The success rate of students pursuing through mode was found to be regular better than through distance mode in VU University. There was a difference of opinion of VU teachers with other three university teachers in regard to objective, course content, instructional strategy and evaluation procedure of distance education. No difference was found in the satisfaction level of the teachers of the distance education according to their designation. However, it was noted that there was a difference in the satisfaction level of the students of the distance education among different universities. But no difference was found in the satisfaction level of the male and female students and also in regard to the opinion of the students because of age variation. It was found that the fee structure of NSOU was less than other three universities. There was a difference in evaluation system among different universities. The system of evaluation in IGNOU was also different from the conventional universities. There was a difference in number of married and unmarried students and also in male and female students in distance and regular course. There was a difference in the community of the students of distance and regular mode. The percentage of minority students was found to be greater in distance mode than in regular mode. There was a difference in age of the students of distance and regular mode. There was no difference in the family pattern, family size physical fitness, education levels of the families of the students of distance and regular mode. But, it was noted that there was a difference in occupational level and income level of the families of regular courses and distance students.

Research Abstracts

Special Education: Adolescents

Title	Patterns of Parenting and Aggression, Altruism and Study Habits of Adolescents
Research Scholar	Swarnali Chowdhury
Supervisor	Aditi Ghose
Joint Supervisor	Manidipa Mitra
Department	Department of Education, University of Calcutta
Degree Awarded	Ph.D. 2016
Availability	Central Library, Calcutta University

Problem

Parenting is a natural and inborn role that leads to the development and realization of personality characteristics of children. Humans, with their acquired cultural biases, have a more significant and instinctive reason to shape their parenting skills according to their beliefs and ambitions about life and happiness. Parenting is a convergent term of the various behaviors and attitudes of parents. While some people may want their children to follow their instructions verbatim, others may want to be more liberal, or may want their directions followed on more logical grounds. Some parents may have strong ideas on ethics, like honesty, trust, violence, etc, while others may take a more lax view of these matters. The variety of parental opinions and actions (as parents) must affect the child's mental development and in turn his or her academic proficiency and predilection. At no stage of life is the effect of parenting more apparent than at adolescence. This is the time that the children are preparing to 'break free of the nest'. This is the time that the children are perceptive to ideas from the environment, ideas that are often at odds with the parental mores. Yet, adolescents' reactions to the environment, its anxieties and tensions, particularly in the school environment, reflect their nurturance at home. In other words, adolescents have not broken free of the moorings at home, and their actions and personality traits reflect the parenting they receive. In spite of this, the adolescent's mental state also gives an intimation of the adult, the future citizen he/ she is going to be. In a human society, we expect that people will

learn to cooperate, to live together, to care for others and to empathize with others' sorrows. Conjunctively, we also expect and hope for a peaceful world devoid of violence. We would want our future citizens to be altruistic and to reign in their aggressive tendencies.

But is this so? What are adolescents like? How altruistic and how aggressive are they? In what way does the parenting they receive affect these tendencies? In addition, do their altruistic and aggressive tendencies have any impact on their study habits? These are some questions that have intrigued the investigator. Therefore, the problem of this investigation is to find out the relation between the different facets of parenting and altruistic and aggressive tendencies of adolescents in secondary schools. Moreover, the investigator strove to relate the above findings to the study habits of these adolescents. This investigation, it is believed, may show the association between parenting and the primary qualities of aggression and altruism, as well as account for the study habits of adolescent students

Objectives of the study

- To study whether the different patterns of parenting influence altruistic behaviour of adolescent students.
- To study whether the different patterns of parenting influence aggressive behaviour of adolescent students.
- To study whether the different patterns of parenting, altruistic behaviour and aggressive tendencies influence the study habit of adolescent students.

Sample

Several schools and undergraduate colleges in Kolkata were approached for participants in the sample. Finally, six girls' and six boys' schools and two colleges agreed to participate. The sample of the study consisted of 620 students from class VII-XII and from 1st-2nd year in colleges. Purposive sampling was followed for selecting the participants of this study. The selected participants were administered the Personal Data Sheet. After perusal of the responses those living with both father and mother were finally selected for the sample.

Tools used for the study

After perusal of several commercially available scales the following tools were selected to measure the different variables.

- Parenting Scale by R.L. Bhardwaj, H.Sharma & A. Garg. (1998).
- State-Trait Anger Expression Inventory by C.D. Spielberg (STAXI Scale, 1996).

- An Altruism scale developed by Ghose & Ray (unpublished, 2007).
- A Questionnaire on Study Habit of Students of Secondary and Higher Secondary Schools by Kalpana Sen Barat (unpublished, 1988)
- A Personal Data Sheet was constructed by the investigator.

All four scales were translated into Bengali and validated by language experts in this field.

Analysis of Data

The tools were administered on the sample and scores were attributed to each participant. The responses were scored according to the norms of the tools and appropriate quantitative techniques were employed. The data was dealt with statistically and the results were subsequently analyzed and interpreted. All variables are continuous and nearly normally distributed. Thus, Pearson Coefficient of Correlation was calculated to find the relation between different variables as indicated in the objectives. This data was then analyzed and compared on the basis of class group and gender.

Findings

- There is a strong positive correlation between whole parenting, whole mothering and altruism of all adolescents and both girls and boys separately.
- Whole fathering is not as significant for boys as it is for girls.
- Girls are more affected by different patterns of parenting regarding their altruism than boys.
- Mothers' parenting patterns have more significant effects than fathers' parenting patterns on adolescents.
- Whole parenting, whole mothering, whole fathering is significantly negatively correlated with State Anger of all adolescents and girls but this is not true for boys.
- There is a significant relationship between different patterns of parenting and State Anger of adolescent girls but this is not for boys.
- Rejection-Acceptance' patterns of Mothering are a significant attribute of State Anger for girls.
- All correlations are negative between patterns of Parenting and Trait Anger of adolescents.
- Boys' Trait Anger is not so affected by parenting as compared to girls.

- There is a negative correlation between whole parenting, whole mothering and Angry Expression of all adolescents both girls and boys, whereas whole fathering is not so effectively related with angry expression of boys as compared to girls.
- Girl's manifestation of anger is more affected than boys by parenting.
- Study Habit is strongly significantly and positively correlated with patterns of parenting, both mothering and fathering.
- Acceptance, Protection, Indulgence patterns of mothering is positively associated with study habit of both adolescent girls and boys.
- There is an association of the fathers' morality with both girls' and boys' study habit.
- Child rearing patterns of parenting have significant effects on the study habit of all the four class groups.
- There is relationship between altruism and study habit of adolescent boys, but this is not so for girls.
- Most of the correlations between study habit and aggressions are negative.
- There is a relationship between aggression and study habit of adolescent boys but it is not true for girls.
- State – anger and angry expression have a significant impact on study habit of all adolescents, particularly on boys.

Thus, this investigation is about assessing how far parents build up the right sort of parenting to overcome the odds of adolescents' lives. Parenting, or different patterns of child-rearing are the primary focus of this study and they have a lot to offer in the way an adolescent carries out responsibilities or tasks in life and their mental stability. While it express the importance of the father's role in shaping adolescent character traits, it nevertheless affects the overriding importance of the mother in children's lives. Moreover, the study tends to imply the special vulnerability of girls in their dependence on and role within the family. In sum, the study indicates the need for absolute parenting in the cultivation of good study habits among adolescents.

Conclusion

Education is about all-round development. This study puts the ball in the parents' court in the quest for all round education of the adolescent. It shows that, just sending children to school cannot ensure complete future citizens. Parents along with teachers, have to take the reins in their hands and strive towards the

development of well rounded personalities and cultivate organized study habits for academic success. Parents are the main influence on a child's life. Their styles of nurturance contribute on children's academic achievement and various psychosocial aspects of development. It is believed that there are some roles that are better performed by parents which children tend to accept most readily than any other person in their life.

This study is an eye-opener for parents so that they may resolve their own conflicts. They have to sit together and give proper time to their children's activities. It has been assured that, children are more altruistic when they have formed more secure attachment relationships with their parents, when parents use reasoning and provide explanations; when they are sensitive to their children's needs and are warm with their children; and when they support their children's experience and regulation of emotions. Adequate parental love, warmth, care and attention are factors for effective parenting. Dialogue, communication, explanations and establishment of good and cordial relationships between parents and adolescents could enhance positive and effective parentings which prevent adolescents' problem behaviors like aggression.

This research is vital and valuable for the practice of social work that can be used to benefit society in a number of ways. The findings of this study have implications for counselors, educationists as well as parents that there is a need to facilitate good quality of parent-child relationship with proper communicative and supportive home environment for their adolescent children. This investigation could benefit schools as well. Teachers would know what factors they should watch for in students, whether it is antisocial behaviors, disruptive behaviors, or the beginning of an affiliation with deviant peers. Teachers could learn how to approach the student and later the parent about the behavior of the former. Schools could offer programs for children and a parents to work together to establish closer bonding.

Keeping in view all the findings of the study, it recommended that, manifestation of anger is affected by different patterns of parenting, specifically negative parenting which includes rejection, harsh parenting, and unsubstantiated moral values, marital discord etc. On the other hand, parents' protection creates a cloak of security for adolescents and is likely to emphasize altruistic tendencies. It was revealed that, if parents provide their children healthy nurturance like warmth and responsiveness, give full independence and impose firm control and discipline, then the children achieve higher levels of competence and social adeptness. So, higher levels of authoritative parenting provide children warmth, autonomy, and high maturity demands that help children to get higher achievement levels.

This study has shed light on the fact that the parenting styles can be a strong source of support for developing adolescent and parents are also the backbone of the future of the nation. Healthy parents can produce healthy children, who in return, can produce a healthy nation. Good parenting can provide close relationships, strong parenting skills, good communication, and modeling positive behavior, so that modifications in the patterns of parenting can be made to make it more favorable for the enhancement of psychosocial competence of the children. Therefore, there is every need for parents to be aware of their actions and attitudes as parents so that the future citizens can build a happy, peaceful and prosperous India.

Research Abstracts

Special Education: Visually Impaired Adolescents

Title	Self Concept, Adjustment Pattern and Emotional Intelligence of Visually Impaired Adolescents
Research Scholar	Priyanka Dutta
Supervisor	Debasri Banerjee
Joint Supervisor	Pranab Kumar Chakrabarti
Department	Education, University of Calcutta
Degree Awarded	Ph.D. 2016
Availability of the thesis	Central Library, Calcutta University

India has a large number of blind populations. The National Sample Survey carried out in 2011 estimated that, there are about 4 million blind populations in the country. It is necessary to explore their feelings, concepts (self), adjustment patterns and emotional intelligence. Research in this area is scanty and inconclusive and therefore, the adolescents having sensory deprivation have been chosen as the subject of study.

The objectives of the present study is to find out the nature and relationship among self concept, pattern of adjustment and emotional intelligence as well as the gender difference between blind and low-vision adolescents.

The study is conducted with blind and low vision (**142 individuals**) adolescents, both male and female of **class VII — X** from **five** separate special schools of Kolkata and its surroundings. Tools use for data collection include:

1. Emotional Intelligence Scale (Bengali, Saha 2009).
2. Children’s Self Concept Scale (CSCS) by Ahluwalia (1986), modified for the visually impaired.
3. Adjustment Scale (modification of Global Assessment of Functioning Scale, GAF), constructed and standardized for the blind and low-vision.

Data were analysed by computing Mean and Standard Deviation, ANOVA and Multiple Correlation.

Results obtained shows that there exists substantial differences between levels of visual impairment, gender groups and the institutional types, in respect to self concept, pattern of adjustment and emotional intelligence. The results also address a fundamental question as whether emotional intelligence is a variable independent of adjustment. This question has been resolved to some extent showing emotional intelligence as a determinant of adjustment pattern.

Research Abstracts

Philosophy of Education: Syama Prasad Mookherjee

Title	Educational thoughts and practices of Syama Prasad Mookherjee: An Analytical study
Research Scholar	Ive De
Supervisor	Mita Banerjee
Department	Education, University of Calcutta
Degree Awarded	Ph.D. 2016
Availability of the thesis	Central Library, Calcutta University

This study aims to provide an insight into the educational thoughts of Syama Prasad Mookherjee and how he wanted to implement the National System of Education. Syama Prasad Mookherjee was an erudite scholar, an eminent nationalist and an excellent parliamentarian. He inherited fervent nationalism from his parents. He was an educationist as well as a politician but these two never interfered with each other. He started his career wherein he worked for only 28 years. During 1940, the shaping up of the nation's educational policy had passed into the hands of the Indian nationalist leaders who were to build free India. Herein lies Syama Prasad's greatness, when he reacted to this and became a constructive thinker. He was the Vice-Chancellor of Calcutta University, Minister in undivided Bengal and the Minister of the Central Cabinet, after Independence. He dreamt of an educational system tuned to the needs of the emerging robust Indian nationalism. He wanted our National Education system to be more practical and make worthy Indian citizens. He nurtured a few things for the enlightenment of students, who would be proud of their national culture, men who will be worthy leaders of a new Bengal. India was ruled by a foreign government where education was not meant for the mass. It was the one and only Syama Prasad who introduced regional languages and Bengali, as the medium of education, and which motivated mass education. Herein lies the relevance of his thoughts in the field of education at large. On the contrary, he dwelled into politics just to safeguard the right to education of every community. He excelled in both the path of education and politics satisfactorily. Highlighting Syama Prasad's contribution to the growth of Nationalist Education is a pedagogic imperative and educational necessity and a nationalist duty.

Research Abstracts

Teacher Education: ICT Perception and Value System

Title	Perception of Teacher Educators about Information and Communication Technology in Relation to their Value System
Research Scholar	Arindam Bhattacharyya
Supervisor	Nimai Chand Maiti
Joint Supervisor	Md. Kutubuddin Halder
Department	Education, University of Calcutta
Degree Awarded	Ph.D. 2016
Availability of the thesis	Central Library, Calcutta University

Problem

Now we are living in knowledge based global society and ICT has taken a key role of the present 'Knowledge Society'. Now ICT has become necessary part of Indian school curriculum as well as teacher education. Therefore, the teacher educators are responsible to promote, utilize and implement of ICT that trainee students can move from pedagogues to techno pedagogues. In the other side, the crisis of value system is visible globally, India is no exception. No human action is beyond the purview of value operation. Actually our social-life is guided by values but advancement of science and technology, brings together a radical change in human society with some ill effects, especially erosion of values. Therefore, the present teacher educators are expected to function as a facilitator for acquisition of knowledge through ICT and also as a value propagator, value inculcator and value transformer of inner being. But the pervasive influence of ICT possesses a serious impact to their wisdom, vision, zeal, thinking process, creativity, and especially their value system. Based on the present scenario, it is very essential to analyze the perception of teacher educators about ICT, to study on the value system of the teacher educators and also to find the relation of ICT perception with their value system.

Objectives

- To compare the value system of male and female teacher educators.
- To compare the value system of teacher educators belonging to different Groups (i.e. Language group, Social Science group, Science group).
- To compare the perception of male and female teacher educators about ICT.
- To compare the perception of teacher educators about ICT belonging to different Groups (i.e. Language group, Social Science group, Science group).
- To study the relationship between the perception of teacher educators about ICT and their e system.

Method

In the light of critical appraisal of previous literature, samples were categorised in Gender (male and female) and Educational Specialisation Group (Language, Social Science and Science). Here researcher used survey research design of descriptive research method. To get proper reflection, a survey of secondary level teacher educators of B.Ed. colleges or B.Ed. departments affiliated to state Universities of West Bengal regarding their value system, perception about ICT and relation between them was done. Stratified Random sampling technique was adopted. Six (6) Universities viz. Calcutta University (C.U.), West Bengal State University (W.B.S.U.), Kalyani University (K.U), Vidyasagar University (V.U.), Burdwan University (B.U.), and North Bengal University (N.B.U.) were selected. Fifty (50) colleges from among all B.Ed. colleges / B.Ed. departments of general colleges affiliated to above 6 Universities, were chosen randomly. Completely filled up response-sheets of 210 teacher educators (Language, Social Science and Science groups) was considered for the study.

To achieve the goal of the study, the researcher developed and standardised a 5 point Likert type scale, ICTPS (ICT Perception Scale), which is highly reliable ($\alpha = 0.846$) and also used another standardised tool, Teacher Values Inventory (TVI). Descriptive statistics like mean, standard deviation and inferential statistical analyses like t-test, ANOVA were done here. Coefficients of correlations (by Pearson Correlation) were computed to find out the relationship among different variables. The Significance of t values and F values were tested at 0.05 level and collected data were analyzed through SPSS 19.0 Version. Data were also represented by Charts and Graphs.

Major Findings

Result of ANOVA shows significant differences among the teacher educators of different educational specialisation groups. Overall value system of teacher

educators is found to be predominantly theoretical and social values. It can be observed that there is no significant difference in ICT perception between male and female teacher educators and the result of ANOVA indicates that there is no significant difference in ICT Perception among the teacher educators of different educational specialisation groups. The most important result is that the value system of teacher educators is not related to their perception about ICT.

- i) There is significant difference in some specific values among teacher educators in respect of their educational specialisation. Therefore regular value orientation (on some specific values) is necessary for teacher educators.
- ii) The institutional fund and provision for ICT supported tools, gadgets and TLMs should be increased. Therefore ICT supported infrastructure development is a very urgent requirement for B.Ed. colleges of West Bengal.
- iii) All Universities of West Bengal should enrich their B.Ed. curriculum with a view to incorporating the usage of ICT- based teaching-learning system as per NCFTE (2009) and NPICTSE (2010).
- iv) Teacher educators' ICT awareness, knowledge, skill, competencies and development through regular seminar, symposium, workshop, project and training should be increased.
- v) Moreover, educational policy makers, educational planners and administrators should be given importance in regular value orientation programme and proper use of ICT in the field of teacher education.
- vi) Educational stakeholders may get a synoptic view about value system and ICT perception of teacher educators of West Bengal.

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